

Cockatiel Manual

Health and Nutrition

Abnormal Bird Droppings

AS A BIRD OWNER, you change poopy papers every day. Probably the last thing you want to do is inspect their contents. All you want to do is dispose of that well-used sports page, lay down another one, and get out the door. But hold on a sec. Did you know that getting better acquainted with your bird's droppings could help save his life? Knowing what normal droppings should look like is as crucial to maintaining bird health as watching for physical injuries, providing a good diet and making sure the room is not too hot or too cold.

Droppings that change in quantity, color, consistency or smell are one of the easiest ways to tell your bird is ill, yet many pet owners overlook this simple diagnostic tool. If detected early enough, many illnesses and health problems that birds otherwise mask can be treated or cured. So grab a pen and notepad, pull up a chair beside the cage, and let's get you started with some basic information about droppings. Welcome to Poopology 101!

What's normal, what's not:

Unlike cats and dogs, who often send clear signals they're not feeling well (usually on your favorite rug), birds drop subtler hints, literally. Although not his most attractive aspect, the poop your bird leaves on the bottom of the cage is a hint you should not ignore.

Droppings reveal a great deal about a parrot's general well-being. By observing droppings every day, you can be your bird's proactive health guardian. You needn't spend hours poring over each masterpiece, but you should study your bird's poop enough to know what a normal one looks like. Once you know, a glance once in the morning and again in the evening will help keep your bird in the pink.

To make detecting changes easy, use plain newsprint, paper towels or clear wax paper in the bottom of the cage. Once you've graduated from Poopology 101, you can switch to regular print newspaper. Never use commercially sold cage bottom materials such as walnut shavings, corn cob shavings, or pellets. They make it impossible to monitor droppings - and they can harbor mold and bacteria that can make your bird sick, no matter what the manufacturers claim.

As a part of your poop patrol, you'll want to also keep an eye on your bird's vent area and the cloaca, the sphincter muscle that controls elimination. The vent area should always be clean and dry

and the cloaca should remain fairly tightly closed, with no odd growths. Moisture, matted stools or extra tissue in the area warrant closer inspection by a vet.

What makes a dropping:

Droppings actually consist of three recognizable parts: feces, clear urine and a white urine called urates. You'll want to get a good idea of what each part looks like normally for your bird and monitor all three daily so you can report any serious changes to your vet.

Generally, the feces part of the dropping should be green or brown. It should be solid and coiled like a snake, segmented or in pieces. The urine portion of the stool should be clear and watery. Urates should be an opaque white-beige crystalline material. Sometimes the urine and urates are mixed, creating a cloudy-looking material, but usually they are separate.

Not all changes in droppings indicate a health problem. For instance, different types of food can change the color of your bird's poop. Birds that favor pellets of a certain color may release feces that have taken on the same tinge. (The feces of birds who eat ordinary pellets are usually rust colored.) Strawberries may introduce a slight reddish color and blueberries, cherries and cranberries can turn fecal matter black.

Watery foods can make your bird's droppings appear looser than usual. Sometimes droppings may even be all liquid. However, as long as any fecal matter remains solid, watery droppings are not diarrhea. They are perfectly normal instances of polyuria, an increase in urine. In fact, long-time bird owners who feed a healthy varied diet including not only pellets but moist foods such as fresh vegetables, fruits, beans, pastas and cooked grains know that extra-wet droppings are the norm - they mean the bird is well-hydrated.

You can expect to see an increase in urine also if your bird receives a scare or experiences stress, such as during a veterinary exam.

Birds on a seed-only diet pass dry and sticky or pasty-looking greenish-black feces, a reflection of malnourishment that eventually can lead to disease. Some species of parrots simply have odd-looking poop. For example, some healthy cockatiels have feces tinged a light green.

Poops can naturally vary in amount, too. Most birds hold their poop overnight until the next morning, when they release a larger-than-average dropping that may smell a bit, too.

The exception to this rule are small birds with higher metabolisms such as cockatiels, who poop throughout the night and will have a pile of droppings beneath their sleeping perch the next morning. Laying females have different bowel habits, too. They drink more water than usual and spend more time in the nest box, where they will hold their droppings. When they leave the box,

they expel large, smelly droppings. Baby birds still on weaning formulas have large droppings, too, with urine composing a large portion.

Changes in feces:

One possibly serious change is diarrhea, which appears as loosely formed feces that are not coiled or solid but watery. Some folks think that the extra-wet droppings that come after a bird eats greens or watery fruits is diarrhea, but it's not. Remember, an increase in urine because of diet or nerves is normal.

With diarrhea, the feces themselves are watery. Diarrhea is rare in birds and usually indicates a problem in the digestive tract. Sometimes it's caused by introducing new foods too quickly. Other times the bird has eaten spoiled food, a foreign object, or a toxin such as lead. Antibiotics also can cause diarrhea.

So can a bacterial or fungal intestinal infection, parasites such as giardia or roundworm, hernias, egg binding, or disease. A bird with diarrhea often will have a "pasty vent," with fecal matter sticking to its behind.

If you think your bird may have diarrhea, or if you're just not sure, contact your veterinarian right away. Birds with diarrhea can become dehydrated and die within a very short period of time. Even in the absence of diarrhea, you should always be on the lookout for worms such as roundworm or hookworm in your bird's droppings.

So as you can see, there are lots of reasons for changes in droppings that you don't have to be concerned about. Now let's discuss some changes that could mean health problems, starting with the feces, which is the dark, solid part of a dropping.

Color changes:

If your bird's red, gray or black feces can't be explained by a diet change, consult your avian veterinarian because these discolorations can mean something serious.

Blood found throughout the stool usually means the bird is bleeding from the lower intestinal tract. It can be a symptom of intestinal infections, poisoning, warts, tumors, ingestion of foreign objects such as parts of toys, parasites, problems with egg laying. Fresh black feces are a symptom of bleeding in the upper digestive tract.

If you suspect your bird is bleeding internally, never wait to see if it gets better. If you wait until the bird shows signs of weakness, it may be too late to save it.

Here are some other feces abnormalities you should speak with your vet about:

Dark greenish-black coloration. This could be a symptom of liver disease.

Undigested food. If you notice any bits of seed or pellets, be worried. These symptoms could mean parasites, an intestinal infection, pro ventricular dilation, or a disease of the pancreas or other internal organs.

Tarlike consistency. If you notice that your bird is defecating blackish, tar-like feces, it could mean he's stopped eating. In small birds such as lovebirds or cockatiels, the feces may turn dark and pasty within 24 hours. It may take 48 hours or longer for larger birds such as African greys and Amazons to have these dark, dense droppings.

Change in volume. If you notice an increase in the amount of feces in each dropping, it could mean your bird is not digesting its food properly or is having a problem laying. Very small, compact, and dark droppings could mean your bird is not eating enough due to an appetite loss from illness or an internal obstruction.

Changes in urine:

The clear, watery urine part of a bird's dropping can change very rapidly according to diet, stress, excitement - or disease.

Increase. If a normal change in diet or emotion can't explain a dramatic or prolonged increase in urine, it could be an early symptom of a metabolic disease such as kidney disease. Poisoning, infections and drug reactions can also cause polyuria.

Decrease. A dramatic decrease in the urine part of a dropping can indicate dehydration, which can rapidly lead to death.

Pasty appearance. Birds on malnourishing all-seed diets often have urine that dries into a white paste. Many people who feed seed diets often mistake this for a normal dropping.

Color changes. Changes in the color of urine, normally clear, are pretty obvious and usually a sign of serious disease. The most common change is a yellowy or greenish tinge due to liver disease. Reddish-brown urine may indicate metal poisoning.

Changes in urates:

A droppings's urates - the opaque white-to-beige portion - change much like the urine does when there's a health problem. A change in color to yellowish or yellow-green could indicate liver disease. Red or reddish-brown urates also can be a symptom of liver disease or lead poisoning. Some veterinarians believe yellowish green urates may also be a symptom of anorexia. If your bird's droppings seem to consist of more urates than usual, it may mean he/she is dehydrated.

Bubbly not good:

Finally, you should watch for a couple of bathroom habits that could mean big trouble. For one, droppings that contain any bubbles or foam probably indicate an infection such as clostridium.

Another symptom of an underlying problem is straining. If you ever catch your bird having problems eliminating, get him to a veterinarian pronto. Straining could stem from a physical blockage caused by a growth or wart or another serious condition such as egg-binding.

Tests at the vet's:

A lot of people ask me what kinds of fecal tests they should expect their vet to perform to determine general health. There are several tests your vet might use, depending on the bird's age and whether it seems sick or healthy. Vets tend to perform more tests on new birds than on older pets because there are more unknowns.

Before taking fecal samples for testing, your vet will ask you what recent stools have looked like and look at the droppings in your bird's carrier. This cursory visual exam will reveal general intestinal and liver health.

For a complete checkup, the vet will need to run what is commonly known as a gram stain on a fresh stool sample, usually one taken from the bird's cloaca using a swab. Gram stains, which involve smearing a glass slide with feces and staining it to see bacteria under a microscope, can be used to check for bacterial and yeast infections that can make your bird sick. If the vet finds a problem, he or she will run an additional culture test on a separate plate to grow and identify the bacteria.

Once identified, the bacteria is transferred to another plate upon which tiny labeled discs using various anti-bacterial agents are placed. In about 72 hours, the vet will know which anti-bacterial agents will do the best job of killing the bacteria and can prescribe an antibiotic for your bird. With vets now able to pinpoint the best antibiotics for infections in birds, just as they do for dogs and cats, there's no reason left for owners to rely on the shotgun approach of trying various pet-store antibiotics.

The vet can also have your bird's fecal sample screened for parasites, which would show up under microscopic examination. Finally, your vet can use droppings to screen for fungal infections, which can be difficult to eradicate unless caught early.

On the poop deck:

Monitoring your bird's bathroom habits may not be the way you pictured spending your time as an owner, but it goes with the territory of responsible caretaking. After all, preventative medicine works for birds, too.

So put these tips into practice, and soon you'll be on your way to picking up your Poopology 101 diploma!

Protecting Your Birds Through Quarantine

Almost everyone says they quarantine their new birds. However, it is surprising how many make no attempt at all to keep the new bird separate from their collection.

Too many people, putting a bird in a separate cage from their other birds for a couple of days is what they consider adequate quarantine procedure. Many times this cage is not only in the same room as the other birds, but is placed next to another bird's cage. For a true quarantine situation, the bird should really be housed in a separate building away from your other birds.

Although people seem to understand about bacteria, viruses, etc., concerning human health, they act as if these things do not exist when it comes to birds. Since they can't see them, they assume they aren't there. They seem to feel that nothing bad will happen to them.

One of the biggest downfalls of some owners and breeders is that they feel they can tell a sick bird just by looking at them. I wish they could but unfortunately when a bird shows signs of illness, they are very, very ill. Birds are food for many animals. In the wild, if a bird appears ill, it will attract predators. Fellow flock members may pick on the sick bird or chase them from the flock. Instinctively, the bird knows that they will not survive if they show any signs of illness. They will try to act normal for as long as possible.

People will get away with lax quarantine procedures for years but eventually, it will catch up with them. Because their parrots are not showing illnesses immediately, the person feels his/her birds are healthy. He/she will never understand when a disease suddenly runs through his aviary/cage killing most of their flock. These people are playing Russian Roulette. It is not a matter of if their birds will become ill, but rather when their birds will become ill.

Whenever you purchase your new bird(s) and add to your collection it must be taken to an Avian Vet and have tests done and quarantined. Since the stop of importation we can no longer be lazy and careless with our present stock.

A person told me that her birds would not pick up any disease as they were never stressed. She believed that only stressed birds became ill. What she failed to understand was that stress takes many forms. A change in food, water, temperature, environment, caretaker or mate as well as producing young can all stress a bird. Even healthy birds can pick up a viral, bacterial or fungal infection, just as people can pick up the flu or a cold by being in contact with a person that is sick with these.

So why don't more people quarantine their new birds? Most of them do not like the inconvenience of not having all the birds in one room and of having to wash their hands between handling the birds. Others are eager to get males and females together so that they can start raising families. Another big reason is the lack of another building to house the new birds or even space in their home. Most birds are regulated to a bathroom or bedroom. Their owners are eager to be able to have those rooms free again. Incidentally, bathrooms make a very poor quarantine area. Too many people are coming and going out of the room and it generally exposes the bird to several types of bacteria. Many people think that a disease just won't happen to them--that it is something that happens to other people!

The dictionary defines quarantine as:

"Keep away from others for a time to prevent the spread of an infectious disease. Detention, isolation, and other measures taken to prevent the spread of infectious disease." The root quaranta means forty, with reference to 40 days as the original period of isolation. Forty is still a good quarantine number with 60 being even better yet for the number of days that a new bird should be isolated from your other birds.

Any bird added to your present flock can endanger your bird(s). Some people feel that a parakeet is so small and common that it won't hurt their other birds. Parakeets can carry some terrible diseases that will kill even the largest parrots. Quarantine rules apply to all birds, regardless of where they are purchased from, size, type or price.

People who rescue birds from abusive or negligent situations or buy birds out of pity from a bad environment run a high risk of infecting their other birds. These birds can easily be ill from poor diets, abuse, no vet checks, and filthy living conditions. I admire people who try to help these birds, but they must take precautions not to infect their present birds. As responsible bird owners, they owe it to their present birds to protect them against disease. If you are rescuing birds, you must follow very strict quarantine procedures and be willing to put up with the extra work and inconvenience that quarantine imposes.

Another area where you must be careful is taking care of a friend's bird. Even your best friend's bird should be quarantined from your birds. This is not an insult to your friend, but rather good bird care habits on your part. One should never be over-sensitive and think that someone has quarantined your bird because they think you do not take good care of your birds. Also if you board your bird at a pet store or any other place where there are other birds, you are again exposing your birds to possible disease. When you take them to bird shows or meetings where there are other birds you increase the chance of picking up a disease. When you go any place where there are birds, you run the risk of bringing a disease back to your birds. Changing clothes and showering will help to keep down the odds of transferring a disease to your flock.

People selling or caring for baby birds must also use quarantine procedures with the babies. Those people that buy babies for resale from different breeders should not place all the babies together. They definitely should not use the same feeding utensils unless they disinfect them between use. They should also be washing their hands between handling of clutches. Babies are very prone to disease as their immune systems are not fully developed. The nursery should be kept very clean and strangers discouraged from going into this area as well as handling the babies.

So what should one do to quarantine a bird? Ideally it should be a building separate from where your other birds are kept. You do not want the birds to share the same air from heating and cooling systems as they would if they are in the same building. Not many people's friends would be bird free and willing to keep a new bird for 30 days or more. If a separate building is not possible, then a room with a door that can be shut and that is away from the rest of your flock will have to do. You do not want to walk through your quarantine area in order to get to your own birds. If possible there should be a hall between your quarantine area and where your other birds are kept.

Slippers or shoes should be left in the quarantine room so that you will not carry anything on your shoes to your other birds. If you are going to hold the bird, you should also have a smock or shirt that you wear only in the quarantine room. Your hands should be washed thoroughly with an antibacterial soap between handling of the bird in quarantine and your other birds.

Cages, toys, dishes and perches should not be shared with the bird in the quarantine area and your other birds. Anything that the bird touches should not be shared with your other birds. Anything from that room should not be near your other birds. You should care for and clean your birds before your new bird.

Daily check the bird's droppings, feed dishes, and general appearance to see if there are any signs of illness. Feed dishes that remain full mean that your bird is not eating. Empty water dishes may mean your bird is bathing in his water dish or that he is drinking a large amount of water. This could be caused by stress or by illness. The color and consistency of the droppings may suggest illness or it may reflect what he has eaten. A bird that is fluffed up and listless may indicate that your bird is trying to keep warm. If the room is kept at a comfortable temperature, this may be an indication that the bird is ill.

No new birds should be added to the quarantine room. If another bird is added, the quarantine times starts all over again for the one already there.

Keep the new bird in quarantine for at least 30 days and better yet, 60 days or even 90 days. After your observations fail to show any signs of illness, he has been taken to an avian vet for a complete checkup and all test results are in, you can put him in the same room as your other birds (provided your other birds have regular vet checks and have proven to be healthy).

Quarantine is time consuming, inconvenient and more work. However, it also saves the lives of many birds and prevents many others from becoming ill. It can keep your breeding stock in top health and thus producing many clutches of strong, beautiful babies. For the pet owner, it ensures that you and your pets will spend many years of quality time together.

People seldom regret having taken the extra time and effort that quarantine requires, but many people have said that they wished they would have taken proper quarantine procedures after a tragedy strikes.

Good question. They should do both a fecal test and a blood test (both highly recommended) as well as a couple of other things listed below.

The well-bird checkup will most likely consist of the following:

- **History:** Your vet should take a thorough history on your bird. You will probably have to fill out an information sheet to be kept in your bird's file that will include a lot of this information. Your vet will want to know your bird's age, where you got her/him from, her/his sex (if you know it), what you're feeding her/him, what kind of cage she/he lives in, if you've given her/him any medications, etc.
- **Physical Exam:** Your vet should do a physical exam. He may watch your bird as s/he sits on a perch in the exam room. He should take your bird's weight and tell you if this weight is normal. He may towel your bird in order to feel her/his keel bone (the breast bone) to determine if your bird is the right weight, and to see if there are any abnormalities along the body.
- **Droppings Exam:** Your vet will probably want to look inside the carrier that you used to bring your bird in with, and look at any droppings. Your vet will look at the color and shape to determine if your bird could have any underlying illnesses.
- **Cultures and Gram Stain:** Your vet will probably take a swab of her/his vent (the opening below her tail) to send to a lab to be analyzed for any viruses or infections. The vet may also take a swab of the inside of your bird's mouth to send off for testing.
- **Blood Tests:** If your vet suggests it, or if you request it, you vet can draw blood from your bird to be tested for any illnesses such as Psittacosis. A Complete Blood Count will look at your bird's immune system to see if s/he's fighting anything. A Blood Chemistry panel can look for at other systems in the body, including mineral and vitamin deficiencies. A blood

test can also be used to determine your bird's sex if you are interested, though the test can be a bit pricey.

- **Possible Vaccines:** Unless your bird is very young and you are concerned about Polyoma Virus, your bird most likely will not get any vaccines. There are very few vaccines available for birds, and the Polyoma vaccine is generally only used on young birds.
- **Grooming:** If your bird needs her/his nails or wings trimmed, your vet or a vet tech can do that right in the office.
- **Question and Answer:** You should use this time to ask your vet any questions you might have on diet and nutrition, bringing your bird to meet friends and relatives, caging, etc. Your vet might recommend some good bird books or bird magazines.

If possible, take your bird to an Avian Vet, a lot of normal Vets do see birds but aren't as experienced as an Avian Vet.

Blood feathers-what they are and what to do about them

****Warning, some content will be graphic****

Blood feathers are new feathers growing in. The process in which a bird sheds old worn feathers and grows in new ones is called molting. New feathers grow in as blood feathers. These are easily distinguished against normal feathers. The new feather grows in the sheath which in a blood feather is dark or light depending on the color of the bird. Darker birds have darker blood feathers and lighter birds have reddish color blood feathers.

Below is a photo of a cockatiel's blood feathers on the right wing. He recently had few blood feathers and a malformed feather removed in this photo. That would be the bald spot on the wing. The blood feathers are next to the bald spot. **DO NOT CUT THESE.** If cut or broken they bleed and it is possible for a bird to bleed to death.

If a blood feather is broken it needs to be removed. Bleeding nearly always occurs with broken blood feathers and if left alone, the bird may keep knocking the painful feather and causing more bleeding and possibly infection. Broken blood feathers are scary to most bird owners but eventually down the line, everyone deals with them.

The most common causes of breaking blood feathers is night frights (night time panics that cause a bird to thrash around in the cage), poor wing clipping, crash landings, and trying to fly with several isolated blood feathers. Blood feathers mostly occur during heavy molts but keep in mind that some birds molt year round. The most common blood feather breakages occur in the wings but it does happen in the tail too.

If you clip your bird's wings, keep in mind to be watchful of blood feathers. If the bird has one blood feather, leave a full feather intact next to it and clip them again when the blood feather is finished growing. If there are several, skip clipping for a few weeks. As mentioned above about the isolated blood feathers breaking, this is often a result from clipping. If a blood feather is left alone with no feather next to it, it is exposed to breaking and is very easily broken.

A pin feather is usually a body feather that grows in. These technically are blood feathers but are much smaller and less likely to break. You can see pin feathers especially during a heavy molt and the bird may be covered in them. They look like little flaky white pins all over the bird's body. Frequent bathing during a molt will really help with the discomfort of these feathers and help with the drier skin of the bird.

If a bird breaks a blood feather you must remove it. If you feel queasy about it, pack on Kwik stop or corn starch into the bleeding feather and get the bird to a vet as soon as you can. If you are sure you can remove it and feel confident about it, you need tweezers and Q-tips or a clean paper towel. Keep these in a first aid kit at all times. Have a second person on hand if you can (if you can do it on your own and know you can, go for it, but if not go to the vet) and have them restrain the bird. Remember, do not hold the bird's chest tightly. Try not to restrain the bird's chest at all. Spread the wing with the broken blood feather and take the tweezers and pinch the blood feather as close to the skin as you can. Grab this firmly. Gently but firmly pull the feather shaft out of the skin. Make sure the follicle has been removed (it will look like a soft bubble-like thing on the bottom of the feather sheath) or else the bird may still bleed and can get an infection or other abnormalities.

After the feather is removed, you need to apply pressure onto the bleeding follicle. Take a Q-tip or paper towel (I personally prefer Q-tips as they are easier to apply to the direct spot) and press it into the wound. Keep it pressed into the wound until the bleeding has stopped. After it has stopped, wet a new Q-tip and clean the area thoroughly. The bird should be fine after. If you happen to have bird anti septic cream, you may want to apply a small amount to the follicle with a Q-tip. Cayenne pepper powder can be used as well.

The bird may hold the wing funny for a few hours to a few days, that's fine. Some birds hold the wings out longer than others, some don't at all. If your bird holds his wings out funny for longer than normal, bring him to the vet as there could be infection or part of the feather still under the skin. Keep checking the feather follicle daily until a new feather grows in. Keep watch for pus and abnormal swelling, especially a week later as it could be a feather cyst from follicle damage. These

usually need vet attention and shouldn't be removed at home. They are extremely painful and will need anesthetic to be removed and cleaned properly.

A feather cyst results when a feather gets trapped under the skin and becomes ingrown. It curls up under the skin and becomes an infected mass which swells under the skin. It is possible for the feather cyst to die off and be pushed out by a newer feather. The photo below is of a cockatiel with a suspected feather cyst that was pushed out by a new blood feather. It was later removed.

Blood feathers breaking too many times can damage the follicle which causes feather cysts, permanent feather abnormalities, and even the possibility of never growing in new feathers. Blood feathers are not a laughing matter in birds and can be out right dangerous. But the bird owner should be prepared and not scared of them. Please be aware of these during molting times and keep a good careful eye on them.

Note: sometimes problems with bleeding wing feathers do NOT involve blood feathers. When a bird panics inside the cage (frequently from a night fright), it's common for wing feathers to get knocked loose as the bird thrashes around inside the cage. Other types of accident can also cause wing feathers to get knocked loose. This may cause bleeding at the point where the quill attaches to the flesh of the wing. But if it is a fully grown feather it will not have a blood supply inside the quill, and it is not an emergency situation unless the bleeding is heavy.

In the case of heavy bleeding from a loose feather that is NOT a blood feather, you can pluck the loose feather using the same procedure described above for blood feathers. If the bleeding is light you can let it heal naturally. The loose feather will usually fall out eventually (it could be a few minutes or a few days) but sometimes it will heal back into place. Until the problem is solved one way or another, the bird is likely to squawk, complain, and hold the wing away from the body while preening the wing in an unhappy manner, usually after it has just folded the wing up after stretching or flying. This is a sign that the loose feather is causing discomfort because it is somewhat out of place, but it isn't a serious medical problem.

Checking the Keelbone (to determine good weight and health)

Sometimes we wonder such things as: is my bird healthy, is it overweight, or too thin? I found the best way to gauge the birds weight/health is to hold the bird in your hand and check the flesh in either side of the keelbone. The keelbone is the center bone that is located from below the base of the neck to the bottom of the ribcage. What you want to do is part the feathers and look at the flesh on either side of the keelbone.

cocktiels can range from 75 grams to 150 grams in weight. Like people the sizes and weight vary.

Allot of this weight variance is due to bone structure. A large boned bird is going to be heavier. Some birds will be long bodied and some short bodied (kinda like long and short waisted people).....and this makes a visual difference in size and a noticeable feel in weight.

I did up a simple illustration to show what to look for. Click on the thumbnail picture for a larger veiw. Feel free to print it out and save it for reference.

If you suspect your tiel is fat you can check the level of flesh on either side of the keelbone, AND also part the feathers on the abdomen to see if the skin has a semi-transparent look, which some intestines and organs may be visible Or if it is opaque as shown in the illustration below which shows fat under the skin. When this is seen it can lead to health and liver problems that need to be addressed.

Feel the breast area. If the keelbone feels like it is sunk into the flesh then they are overweight. Ideally you want the tissue flush even with the edge of the keelbone

cockatiels like people come in all sizes. Some have a large bone structure and some have a small, delicate bone structure. As long as the flesh is good on either side of the keel bone and the bird looks proportinate for it's size then I would not worry about the weight.

Doing a bird weight table is sometimes useful to keep in track the normal weight of your bird.

Like this one bellow 3 columns and about 40 rows...

Date	Time	Weight

Help! My Bird Is A Seed Junkie! Converting the Stubborn Junkie.

Note, please make sure your bird is healthy with a veterinary checkup before making drastic changes to his or her diet, especially when doing this method of change. It can be a pretty abrupt change for some birds. This method has worked for me for over 120 rescues and fosters, however, every bird is an individual and sometimes the timing had to be modified for a slower adjustment. Be especially careful with older birds who have been on a junk food diet for a long period of time.

So your bird is a seed junkie? Does he prefer Millet to Kale? Does he stick his nose up at Broccoli? Does she think that carrot greens or sprouted seeds are for nesting and not eating? Does your bird act like a typical child looking at veggies in the same way? Welcome to the world of the hard core seed junkie.

Back in 2002, I spent some time volunteering at a parrot sanctuary in NJ. We had parrots of all kinds there, over 80 birds at one point. They would come in from all over NJ, PA and NY and 90% of them were die hard junkies. One poor bird that came in would only eat sunflowers and peanuts or powdered sugar covered doughnuts. Yes, the poor cockatoo was allowed to eat doughnuts for breakfast with his owner, along with a sip of coffee. Horrendous! Most of the birds came in with poor or no feathers, behavioral issues like screaming and many came in with deformities which came from either being raised on poor foods or having parent birds who were given poor foods while raising their babies. 95% of those birds were converted to a healthy diet in six weeks or less using this method.

First, lets look at what a normal diet is for our birds in the wild.

In the wild, our Cockatiels would eat a variety of items. They are normally ground feeders, which feed on a variety of grass, leaves, flowers, seeds, nuts, berries and grain. They are social feeders and typically feed in flocks from just a few to hundreds. Cockatiels roost in trees near water and travel from these areas in large flocks to feeding grounds. The foods they eat will be in varied conditions from succulent ripe to dried, seeds can be sprouted, dried or immature. They will consume berries and even forage on small insects. Their diet changes according to the available foodstuffs and they can adapt to a wide range of foods.

In captivity, our birds can only eat what we give them. As they are domesticated, their natural foraging ability diminishes and they “learn” to only eat what we offer. There have been many arguments to seed vs. pellet diets and if this is all you feel comfortable offering, your bird may live ok on such diets. BUT, the cost of seed and pellets can get expensive. What if we could offer a more natural diet that would benefit not only our beloved pet, it would cost less in the long run? Not only in veterinary bills but in overall food costs! The simple answer is, convert your junkie! Adding fresh and cooked foods to your bird’s diet will cut your food cost from 20 to 30%! And the added benefit of a healthier bird means less money spent at the vet!

Safe Foods

So, what foods are safe? Well, cockatiels can eat almost any vegetable and fruit out there with a few exceptions. Avocado, Onion, Shallot, Tomato and regular Potatoes are items that I recommend you avoid. They are not good for our birds at all. There are other items which are not good for our birds such as chocolate, coffee, apple seeds, cherry pits and other items which can be found easily through a search online or here in the forum.

But, some of my favorite and inexpensive bird foods are;

Chard, Kale, Broccoli, Spinach, Carrots (including the green tops), Peas and Beans (dried or fresh but cooked), Cabbage, Lettuce (red, leaf, butter, endive and so on - iceberg has the lowest nutritional value so it would be better to offer one of the other darker leaved varieties), squash, pumpkin, yams, sweet potato, peppers (my birds like them ALL, especially the hotter ones), fresh ginger root and corn. We also find cooked items like Quinoa, brown rice, steel cut oats, whole wheat pasta, eggs (including the shells), barley, corn bread, toasted whole wheat bread, lentils and beans are a huge hit.

So – What is the Magic food?

In single word, we refer to the magic food as MASH. Mash can be any mixture of the above safe food ingredients. My base mash consists of the following cooked and fresh foods to begin with.

Cooked portion

¼ cup Cooked Black beans

¼ cup Cooked Pinto beans

¼ cup Cooked Lentils (green or red or both)

¼ cup Cooked Brown Rice

¼ cup Cooked Quinoa

4 tbsp Cooked Steel Cut Oats

2 tbsp Cooked and Mashed Pumpkin or Squash

1 Cooked, peeled and mashed Yam or Sweet Potato

Combine the above ingredients in a large bowl, making sure that items are cooled. Do not mash beans or grains, only mash Pumpkin, Squash, Yam and Sweet Potato.

Once mixture is fully combined, it can be placed into ice cube trays and frozen so that smaller portions can be served. This makes a large amount!



Basic Bird Cornbread

1 box cornbread mix (Jiffy mix is what we use)

1 egg (including crushed shell)

1 c. fresh or frozen broccoli or mixed frozen vegetables.

Mix the cornbread mix as directed on the package.

Add an extra egg, egg shell, and the broccoli or mixed vegetables (I chop fine the vegetables in a food processor). Bake as directed on package. Cool. Cut into serving size pieces and freeze until needed.

Fresh Raw portion

Carrot with green top

Piece of Broccoli or several Broccoli leaves

Kale

Chard

Red Lettuce

Raw corn cut from the cob

Spinach

Sprouted seeds

Piece of Ginger root

1 slice, toasted, Whole Grain Bread

Combine the fresh raw ingredients along with a piece of Bird Cornbread in a food processor and chop until fine but not liquid.





And Finally

Combine 1 cube of cooked portion to the mix of fresh raw portion. This is the basic MASH. You can add or change most of the vegetables. I have occasionally added fresh berries into the raw mix.

Now you can combine the basic MASH to a portion of your bird's regular seed/pellet diet. Because the MASH is a little sticky, your bird can not avoid tasting the MASH along with his seed/pellet diet.



So – How do I convert my Junkie?

Whether your bird is on an all pellet, all seed or mixture of both, the premise of this conversion will be the same. Remember, you will not eliminate your bird's preferred diet overnight. It will take time. He or she will likely have their favorite foods and continue to eat what they prefer but this will widen their horizons and open up their pallet to a more natural way of eating.

I will break this down over a couple weeks so that you can follow along. The photos I have used to illustrate are taken from my own flock feeding and are LARGE amounts to feed a flock of 40+ birds. You need only get the idea and then tailor it to meet your smaller or larger flock needs.

Week 1

Remove all food bowls around 6pm the night before you begin, leave plenty of water. I have my birdies a little on the hungry side before we start. This is especially true if you have a bird who is used to noshing throughout the day instead of eating at a particular time. Don't worry, once you have undergone the full process, we will return a "nosh" food to your bird's routine.

Around 8 or 9am prepare the first meal. The mix should be 20% MASH to 80% regular diet of seed/pellets. Offer this for an hour then remove and toss. At first this will seem to be a great waste but trust me, it will be beneficial in the long run.

At around 2pm, offer your bird a few tablespoons of his regular food alone. Leave it for 2 hours, then remove. Be sure to leave water at all times.

At around 6pm, offer the second meal. Again, the mash mix should be 20% MASH and 80% regular food. Leave it for an hour, then remove and toss.

The Mash must be tossed after an hour or bacteria will develop and the food will spoil. We do not want your bird to get sick.

This routine should be your daily routine for a week. Monitor your bird's progress with a gram scale. Be sure he or she is not losing too much weight while they are learning to enjoy the healthier options.

Week 2

This week, you should increase the mash to 40% and decrease the seed/pellets to 60%. Follow the previous schedule for feeding times. Continue to offer the normal seed pellet mix at around 2pm for about 2 hours only.

Week 3

By now, you should see your bird eating a little of everything. If you do – wonderful! You can leave a few tablespoons of seed/pellets in a bowl throughout the day but continue to remove this bowl by 6pm each night! The Mash should be 50% MASH and 50% seed/pellets for the two feedings this week. Continue to offer once in the morning and once in the evening for an hour each time. If your bird stops eating the MASH, go back to week 2 for another week.

Week 4

If your bird is now greeting you at the door for his morning and evening mash – you will now increase the mash to 80% with only 20% being seed/pellets. Continue to offer the normal dry foods of seed/pellets without the mash throughout the day and remove the mash mix after one hour each time.

Week 5

100% mash is the goal for this week. Your bird should be excited to get the mash now and should be buried in his bowl. You can now offer the mash as a once-a-day or twice-a-day meal and provide a normal amount of dry seed/pellet to nosh on throughout the day. Congratulations!

You can now begin to add additional foodstuffs to your Mash. We have added whole wheat pasta, hibiscus flower, apples, nectarines, apricots, mango (a favorite), chopped nuts and many other safe foods. Variation will keep your bird trying new things and will keep him or her healthier in the long run!

Please be very careful while you're teaching your birds to eat better. Drastically reducing the percentage of your bird's old diet can be dangerous if he/she isn't eating as much of the new food if you think. My personal preference is for cafeteria-style feeding, where you provide seed, pellets, veggies, and other healthy foods (like mash) and let the bird decide how much of each one to eat. It's OK to provide only the new foods first thing in the morning, to give your bird more of an incentive to eat it and learn to like it. But the bird should have a variety of foods available for most of the day to make sure that he/she gets enough calories. A balanced diet is important for long-term health but getting enough to eat is more important in the short term, even if it's junk food.

Safe weeds to feed cockatiels!

So, as I was walking through my yard looking for weeds to feed to the flock, I decided, what weeds CAN I feed them? So I decided to make a list along with descriptions and pics of each plant! I watched a video, made a list, and looked each up one by one! Out of a list of twelve only five came out correct! Some of them didn't not have a lot of info on them, and some were listed as toxic so I decided not to include them! I will post the original list though!

Original List:

- Winter Grass
- Rye Grass
- Shepherds Purse
- Banded Clover
- Yellow Flowering Daisy
- Chickweed
- Power Grass
- Buffalo
- Dandelion
- Milk Thistle Plant
- Medic Plant
- Perennial Rye Grass

Winter Grass

Winter grass has many names according to different regions. Three of these are winter grass, walk grass, and annual bluegrass. Its scientific name is *Poa Annua*. This plant can be found in all of the U.S and Greenland, and most of Canada. This is a invasive plant, and many may not want it lying in their yards, but birdie owners can put it to use! You can even start growing a little patch of winter grass! This is a favorite in many pet birds.

Shepherds Purse

Shepherds purse may look a little like dandelion. Its scientific name is *Capsella bursa*. Shepherds purse is part of the mustard family, and is native to Asia minor and Europe. Though it is native only to Europe and Asia Minor, it is a common weed throughout the world. It prefers to live in colder climates. It is also found in North Africa, North America, China, and the Mediterranean. Unusual to flowering plants, this plant flowers all year long. The leaves of Shepherds Purse can supply a bird with vitamins A, C, and K, calcium, iron, potassium, sodium, and some protein.

Perennial Rye Grass

The scientific name of Perennial Rye Grass is *Lolium perenne*. It is also known as the English Rye Grass. It is native to Europe, Asia, and North Africa, but it has spread all over the world. Cockatiels prefer half ripe seeds, so the greenest plants are fine. My birds personally like to chew the stem open and eat out the insides.

Chickweed

This plant has always been given to birds kept in captivity. There are many kinds, and the most common one is *Stellaria chickweed*, so that's the one I will explain about. Its scientific name is *Stellaria media*. It is an annual plant that is native to Europe. Chickens like to eat it, thus giving it its name. The leaves of Chickweed are a good source of vitamin A, B, C, and D. It's also a good source of calcium, potassium, zinc, copper, and iron. Zinc in organic plants is not toxic! Only zinc in metals is deadly.

Dandelion

Dandelion, a common plant that everyone recognizes, has the scientific name of *Taraxacum officinale*. It is native to Eurasia and North America, but has spread all over the world. Birds like cockatiels can eat any part of it. When you first offer dandelion to your bird she might have diarrhea but that's normal, her poo will return to normal after a while. You can also offer it with soil that's still attached to the roots of dandelion.

Purslane

The scientific name of Purslane is *Portulaca oleracea*. It is also known as Pigweed, little Hogweed, Pusley, and Verdolaga. It can grow up to 40 cm high. It is considered an exotic weed in the New World, and considered an invasive weed. It contains taproots, and is able to survive poor and/or compact soil. It can also survive droughts. Depending on the amount of rain fall flowers of purslane can bloom during any time of the year. Purslane first originated in India. Purslane is rich in vitamins A and C. It also contains riboflavin, calcium, iron, potassium, and manganese.

The best diet for cockatiels

What is the best diet for cockatiels? The truth is that nobody really knows. But time and experience indicate that the best diet is a varied diet including seeds, pellets, vegetables, and other nutritious foods.

There's no doubt whatsoever that an all-seed diet is unhealthy in the long run, and contributes to health problems like fatty liver disease. Because of this, some people think that seeds are unhealthy and pet birds shouldn't be allowed to eat them. THIS IS NOT TRUE. Seeds are an excellent high-nutrition food, and are particularly good for cockatiels because cockatiels are seed-eaters in the wild. But seeds are not nutritionally complete, so we need to encourage our birds to eat other types of food in addition to seeds so they can get important nutrients that seeds don't contain.

There's an important difference between seed-eating in the wild and seed-eating in captivity: wild birds have a wide range of options and can consume seeds in all stages of development, from unripe green seeds to mature dry seed. They also have access to other food sources, and cockatiels are known to chew on grass and plant stems and eat an unknown quantity of insects, as well as consuming grit and charcoal from burned areas.

Feeding ecology of wild cockatiels

The feeding ecology of the cockatiel *Nymphicus hollandicus* was studied in a grain-growing district near Moree, in northern New South Wales, between August 1980 and June 1982, by direct observations and monthly collections of birds in feeding flocks. Cockatiels fed from the ground, on fallen seed or by felling stems, and, when feeding on sorghum and sunflowers, while perched on the seed heads. The mean size of a feeding flock was 27; large flocks of more than 100 birds were formed only during periods of limited food supply. Cockatiels showed a clear preference for sorghum over sunflowers, and when on cereals they appeared to prefer softer, younger seed to harder, mature seed. Overall they fed on 29 seed types, including four grain-crops, 17 grasses and eight non-grass ground plants. Sorghum was by far the most important food item, making up almost 60% of total crop contents; sunflower made up only 6% of crop contents, and grasses 19.3%; 90% of this last was contributed by *Phalaris paradoxa* and *Setaria* sp. Some management implications, based on apparent food preferences, are discussed.

I first found out about this study from an old issue of Bird Talk that I recently acquired, and today somebody told me about this online summary. Bird Talk had more to say about crop contents that isn't online:

"Of the birds studied, there were pieces of charcoal in 29 percent of all crops, mineral items in 13 percent of all crops, plus dense woody material in many of the crops. It could be postulated that the intake of charcoal was to de-toxify other items the birds eat as part of their normal diet. This could be for reasons similar to why some of the macaws of South America eat clay from cliff faces. The intake of a bland substance must have a purpose, otherwise the birds wouldn't include it in their diet."

It seems to me that "mineral items" are equivalent to grit.

Still more from BirdTalk:

"They also attack standing crops, particularly sorghum and millet, and can cause significant damage. They are known to be particularly fond of acacia seeds and mistletoe berries. They are ground-feeding birds that search for whatever seeds are available from grasses, herbs, and trees. Cockatiels have been seen in mixed flocks with red-rumped parakeets picking up spilled grain in stubble paddocks."

"Some grain farmers devised a special method of preventing cockatiels from devouring their sunflower crops. They sowed a strip of sorghum around the perimeter of the sunflower field, timed so that the ripening sorghum has a milky head just as the sunflower crop is at its peak. Because the milky head of the sorghum is their favorite food, the cockatiels devoured the "sacrificial" sorghum strip, leaving the sunflower crop untouched."

"The daily feeding routine includes a morning ritual whereby, 30 to 50 minutes after sunrise, they fly in a group from their roosting trees and perch in dead trees with their backs to the sun, to sun themselves before going to ground to feed. Even the late arrivals follow the same procedure before feeding."

"The afternoon session starts 60 to 90 minutes before sunset."

Captive birds have fewer choices since they are limited to what we offer them, and what we tend to offer is mature dry seed. It's good stuff, but it doesn't contain everything that wild birds can get. That's why it's important to offer vegetables, to supply some of the nutrients that wild birds obtain from their favorite greenfoods. A variety of veggies is best since they vary in their nutritional content. Most cockatiels don't like fruit, and vegetables have more nutrients anyway, so it's OK to not bother with fruit.

Minerals are important to the diet too, and calcium is especially important for the health of breeding hens. Cuttlebone and mineral blocks are popular sources of calcium, but other nutrients are needed for the body to absorb the calcium, especially magnesium and vitamin D3.

Lack of calcium (Importance of Calcium)

We have all heard that it is important to supply calcium sources, especially when a bird is laying or breeding. The reason why is to provide enough calcium intake to produce strong, dense shell on the eggs, and to also be a preventative to soft or shellless eggs, which can contribute to egg binding and/or dystocia, impaction or prolapse of the uterus.

The most common recommendation is supplying cuttlebone or calcium supplements, and greens or veggies that are rich in calcium. In supplying this we think the bases are covered and aid as a preventative to a hens reproduction problems, yet have a hen that passes a soft shelled egg or is egg-bound...why?

Most times this is not enough. There are several factors that can influence the output of calcium circulating in the bloodstream, which is drawn from the bones while an egg is in the uterus (shell gland).

Researching the sources of calcium and other mineral nutrients is very important.

High levels of phosphorus in the blood will inhibit the mobilization of calcium from bone. When this occurs this increases the chances of soft-shelled eggs which can lead to impactions and binding.

Below is a listing of what a shell consists of. When researching foods nutrient contents you will want to also look up which greens/veggies foods contain trace elements of the following:

Calcium carbonate: 94-97%

Phosphorus: 0.3%

Magnesium: 0.2%

Sodium, Potassium, Manganese, Iron and Copper: traces

Organic matter: 2%

The small amount of organic matter mostly consists of matrix proteins (mixture of proteins and polysaccharides rich in sulphated molecules) and shell pigment. The matrix proteins are critically important in determining the egg shell structure and serves as foundation for the deposition of calcium carbonate.

The structure of an eggshell when examined under a high powered microscope will look like a tangled network of mineralized fibers...kind of like looking at the mat in an air conditioner filter. The eggshell is formed around a mat of proteins, which is coated and overgrown by calcium carbonate and other mineral salts. The result is a tough, waterproof package that still allows gas exchange between the inside and the outside, enabling the developing embryo to 'breath', while providing astonishing mechanical strength. The shell has enough calcium carbonate in it, which as the embryo gets close to hatch, it can use this reserve to draw into the body and bloodstream for the developing bones.

NOTE: most greens and veggies contain oxalic acids. These will bind usable calcium from foods. What you want to do is look for foods that have a higher calcium content than oxalic acid. The usable calcium is the difference between the two. Print out the following page:

- Beet Greens* - Beetroot Greens/leaves
- Kale* - Curly Kale

Oxalic acid per 100 grams

VEGETABLE

(alphabetic list)

0.13 g -- Asparagus
0.36 g -- Beans, snap
0.61 g -- Beet* leaves
0.19 g -- Broccoli
0.36 g -- Brussels sprouts
0.10 g -- Cabbage
0.50 g -- Carrot
0.15 g -- Cauliflower
0.19 g -- Celery
0.21 g -- Chicory
0.45 g -- Collards
0.01 g -- Coriander
0.01 g -- Corn, sweet
0.02 g -- Cucumbers
0.19 g -- Eggplant
0.11 g -- Endive (Escarole)
0.02 g -- Kale*
0.33 g -- Lettuce
0.05 g -- Okra
1.70 g -- Parsley
0.04 g -- Parsnip
0.05 g -- Pea
0.04 g -- Pepper
1.31 g -- Purslane
0.03 g -- Rutabaga
0.97 g -- Spinach
0.02 g -- Squash
0.24 g -- Sweet potato
0.05 g -- Tomato
0.21 g -- Turnip
0.05 g -- Turnip greens
0.31 g -- Watercress

Oxalic acid per 100 grams

VEGETABLE

(ordered list)

1.70 g -- Parsley
1.31 g -- Purslane
0.97 g -- Spinach
0.61 g -- Beet* leaves
0.50 g -- Carrot
0.45 g -- Collards
0.36 g -- Beans, snap
0.36 g -- Brussels sprouts
0.33 g -- Lettuce
0.31 g -- Watercress
0.24 g -- Sweet potato
0.21 g -- Turnip
0.21 g -- Chicory
0.19 g -- Broccoli
0.19 g -- Celery
0.19 g -- Eggplant
0.15 g -- Cauliflower
0.13 g -- Asparagus
0.11 g -- Endive (Escarole)
0.10 g -- Cabbage
0.05 g -- Okra
0.05 g -- Tomato
0.05 g -- Pea
0.05 g -- Turnip greens
0.04 g -- Parsnip
0.04 g -- Pepper
0.03 g -- Rutabaga
0.02 g -- Squash
0.02 g -- Cucumbers
0.02 g -- Kale*
0.01 g -- Coriander
0.01 g -- Corn, sweet

- Peppers (bell)* - Capsicum
- Beet Greens* - Beetroot Greens/leaves
- Cilantro* - Coriander
- Romaine Lettuce* - Cos Lettuce
- Cantaloupe* - Rock Melon
- Beets* - Beetroot
- Kale* - Curly Kale

CALCIUM per 100 grams -- Vegetables

309 mg -- Lamb's quarters
210 mg -- Spinach, Mustard
208 mg -- Dill Weed
190 mg -- Turnip Greens
187 mg -- Dandelion Greens
145 mg -- Collards
138 mg -- Parsley
135 mg -- Kale*
120 mg -- Watercress
119 mg -- Beet* Greens
105 mg -- Chinese Cabbage (pak-choi)
103 mg -- Mustard Greens
100 mg -- Chicory Greens
99 mg -- Spinach
81 mg -- Okra
68 mg -- Lettuce, Looseleaf
67 mg -- Cilantro*
65 mg -- Purslane
52 mg -- Endive (Escarole)
51 mg -- Swiss Chard
51 mg -- Chard, Swiss
48 mg -- Broccoli
47 mg -- Cabbage
47 mg -- Rutabaga
42 mg -- Brussels Sprouts
40 mg -- Celery
37 mg -- Sweet Potato Leaves
37 mg -- Green Beans
36 mg -- Lettuce, Romaine*
36 mg -- Parsnips
32 mg -- Lettuce, Butterhead (Boston, Bibb)
32 mg -- Alfalfa Sprouts
31 mg -- Squash (winter, all varieties)
30 mg -- Turnip
27 mg -- Carrots
24 mg -- Kohlrabi
23 mg -- Carrots, Baby
22 mg -- Sweet Potato
22 mg -- Cauliflower
21 mg -- Asparagus
21 mg -- Pumpkin
20 mg -- Squash (summer, all varieties)
19 mg -- Endive, Belgian (Witloof Chicory)
16 mg -- Beets*
14 mg -- Cucumber (with skin)
9 mg -- Peppers*, Red
9 mg -- Peppers*, Green
5 mg -- Tomato
2 mg -- Corn, White ♦

CALCIUM per 100 grams -- Fruits

49 mg -- Raisins, Seedless
40 mg -- Orange
33 mg -- Lime
32 mg -- Blackberries
28 mg -- Kiwi
26 mg -- Lemon (no peel)
24 mg -- Papaya
22 mg -- Raspberries
15 mg -- Cherries, Sweet
14 mg -- Strawberries
14 mg -- Tangerine
14 mg -- Apricots
12 mg -- Grapefruit, White
11 mg -- Grapefruit, Pink and Red
11 mg -- Pear
11 mg -- Cantaloupe*
11 mg -- Grapes
10 mg -- Mango
8 mg -- Watermelon
8 mg -- Persimmon, Japanese
7 mg -- Pineapple
7 mg -- Apple (with Skin)
7 mg -- Cranberries
6 mg -- Banana
6 mg -- Honeydew Melon
6 mg -- Blueberries
5 mg -- Casaba Melon
5 mg -- Nectarine
5 mg -- Peach
4 mg -- Plum

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Once you print out the tables above, you will have to look at the listed calcium level below:

- Peppers (bell)* - Capsicum
- Beet Greens* - Beetroot Greens/leaves
- Cilantro* - Coriander
- Romaine Lettuce* - Cos Lettuce
- Cantaloupe* - Rock Melon
- Beets* - Beetroot
- Kale* - Curly Kale

Ordered Lists

Calcium:Phosphorus Ratio	Calcium:Phosphorus Ratio
Vegetables	Fruits
Ca:P	Ca:P
14.5:1 -- Collards	4.8:1 -- Papaya
7.5:1 -- Spinach, Mustard	2.9:1 -- Orange
4.5:1 -- Turnip Greens	1.8:1 -- Lime
4.3:1 -- Lambsquarters	1.8:1 -- Raspberries
3.2:1 -- Dill Weed	1.8:1 -- Lemon (no peel)
3.0:1 -- Beet* Greens	1.5:1 -- Blackberries
2.8:1 -- Dandelion Greens	1.5:1 -- Grapefruit, White
2.8:1 -- Chinese Cabbage (pak-choi)	1.2:1 -- Grapefruit, Pink and Red
2.7:1 -- Lettuce, LooseLeaf	1.2:1 -- Tangerine
2.4:1 -- Mustard Greens	1.0:1 -- Pineapple
2.4:1 -- Parsley	1.0:1 -- Pear
2.4:1 -- Kale*	1.0:1 -- Apple (with Skin)
2.1:1 -- Chicory Greens	0.9:1 -- Mango
2.0:1 -- Spinach	0.9:1 -- Watermelon
2.0:1 -- Watercress	0.8:1 -- Cherries, Sweet
2.0:1 -- Cabbage	0.8:1 -- Grapes
0.7:1 -- Endive, Belgian (Witloof Chicory)	0.8:1 -- Cranberries
1.9:1 -- Endive (Escarole)	0.7:1 -- Casaba Melon
1.6:1 -- Celery	0.7:1 -- Apricots
1.5:1 -- Purslane	0.7:1 -- Kiwi
1.4:1 -- Cilantro*	0.7:1 -- Strawberries
1.4:1 -- Lettuce, Butterhead (Boston, Bibb)	0.6:1 -- Cantaloupe*
1.3:1 -- Okra	0.6:1 -- Honeydew Melon
1.1:1 -- Swiss Chard	0.6:1 -- Blueberries
1.1:1 -- Turnip	0.5:1 -- Persimmon, Japanese
1.1:1 -- Chard, Swiss	0.5:1 -- Raisins, Seedless
1.0:1 -- Squash (winter, all varieties)	0.4:1 -- Peach
1.0:1 -- Green Beans	0.4:1 -- Plum
0.8:1 -- Lettuce, Romaine*	0.3:1 -- Nectarine
0.8:1 -- Sweet Potato	0.3:1 -- Banana
0.8:1 -- Rutabaga	
0.7:1 -- Broccoli	www.guinealynx.info
0.7:1 -- Cucumber (with skin)	
0.6:1 -- Carrots	
0.6:1 -- Squash (summer, all varieties)	
0.6:1 -- Carrots, Baby	
0.6:1 -- Brussels Sprouts	
0.5:1 -- Cauliflower	
0.5:1 -- Kohlrabi	
0.5:1 -- Pumpkin	
0.5:1 -- Alfalfa Sprouts	
0.5:1 -- Parsnips	
0.5:1 -- Peppers*, Green	
0.5:1 -- Peppers*, Red	
0.4:1 -- Sweet Potato Leaves	
0.4:1 -- Beets*	
0.4:1 -- Asparagus	
0.2:1 -- Tomato	
.02:1 -- Corn, White ♦	

Deduct the oxalic acid levels to give you a clearer picture of the calcium to phosphorus ratios. The calcium to phosphorus ratio should be 2:1.

Proper lighting plays an important role in good reproductive health of hens.

Either available in the form of real sunlight (not filtered thru glass) or from Full Spectrum Lighting (FSL) In simple terms the skin absorbs the UV (ultra violet) rays from the lighting and the body converts it to useable D3, and this in turn aids the uptake of useable calcium.

The reason why either access to real sunlight (not filtered thru a window) or Full Spectrum Lighting (FSL) is important is that is that birds absorb the light into their skin which converts it to vitamin D3, also known as cholecalciferol, and is required in the intestines to help absorb calcium to regulate important blood calcium levels which as the hen is forming the shell in the uterus. The calcium is drawn from the bones via the blood stream.

Some Cautions: This form (sunlight or FSL) of vitamin D3 is far safer than supplementing with vitamin D3. Vitamin D3 is a fat soluble vitamin, which gets stored in the body, and if supplementing in excess this can create a toxicity in the body. It can also contribute to hypercalcemia (too much calcium in the blood) which affects the heart, other organs and cause liver toxicosis, calcification of the kidneys and gout.

Therefore when feeding pellets, (they do contain D3 and calcium) you should **never give additional supplements that contain (D3) and calcium** because the diet is designed to provide what the bird needs.

If feeding a varied diet...which is pellets (approx 20%) , seed, and fresh greens/veggies then it is safe to provide a calcium source, such as cuttlebone and/or mineral block. FSL and sunlight access are natural forms of sources for D3 and are safer and more easily assimilated than from artificial sources.

When monitoring a tiny chick it may be hard to tell if there is any slight gain or loss if the scales weighs in grams.

Some problems that can occur during ovulation are:

Ectopic ovulation is occurs when the infundibulum fails to engulf the yolk (ovian) because of reverse peristalsis of the oviduct, trauma or stress. The yolk misses the funnel of the infundibulum and goes into the abdominal cavity.

If the egg moves too fast (don't know the causes of this) then it does not pick up the yolk but the other steps are done in the uterus it will result in an egg with no yolk. An egg with no yolk will not hatch.

Oviductal diseases that may result from Ectopic ovulation may include infectious salpingitis, rupture of the oviduct, cystic hyperplasia, peritonitis.

Egg yolk peritonitis is most common with: cockatiels, budgies, lovebirds, ducks and macaws. Clinical signs include weight loss, depression, respiratory distress, anorexia, and ascites. Abdominal distension may or may not be present.

Examining and providing the best sources of calcium does not stop at providing good shell quality.

Hypocalcemia, and Seizures

When keeping and breeding we focus on supplying proper lighting and calcium sources to the hen. The above is just as important to a male. If lacking, the bird would have problems assimilating calcium and a lack of compensatory mechanisms to maintain serum calcium levels, and an inability

to mobilize skeletal calcium. Sometimes this can also appear as a vitamin D3 deficiency. When this happens the bird is very prone to having seizures.

Hypocalcemia and seizure activity tends to be a problem only with male cockatiels.

Treatment for hypocalcemia consists of calcium (injectable calcium with phosphorus at time of seizure), D3 (preferably exposure to sunlight or full spectrum lighting) and supportive care such as Sub-Q fluids, which will get the blood levels up, and multivitamin injections (must contain Vitamin A and E)

Another thought at the time for seizures was a malabsorption problem. I found this is partially true. Most greens contain oxalic acid. I didn't know this at the time except for spinach which with the calcium and reactions to oxalic acids form calcium oxalates. Stress causes a sudden increased acidity in the GI tract and also upsets the metabolic balance of fluids in the body. Everything is a chain reaction.

I had some birds that had to have a health inspection. One had a seizure in the vets office. He drew blood to have sent out to a lab. I told him to give a Calphosan shot (calcium and phosphorus) because it had worked in the past for me to bring a bird out of it. At the time I had only thought it to be a malabsorption problem. Blood calcium and phosphorus levels were real low. Similar to what is seen with African Greys which are also prone to hypocalcemia.

At the time I did not know what exactly was the cause. In reality simple capture increases the heart rate that can trigger a hypocalcemic bird into a seizure because there is not enough calcium in the bloodstream. Some mutations such as cinnamon, fallow and lutino, or splits to these mutations tend to have this problem. Heart rate is increased when trying to get a bird out of the cage, or chasing and netting. But if blood was drawn while the bird has a seizure it would show very low blood levels. The quickest way to bring it out of seizure is injectable Calphosan. or orally with a drop of liquid calcium under the tongue. The injectable calcium rapidly gets the blood calcium levels up.

In regards to your birds many greens are rich in calcium and phosphorus. Researching the nutrient content of foods (1...) is just important to the male.

The need for a good source of calcium does not stop at supplying it prior to egg laying.

The calcium is drawn into the developing embryo as it grows through the vascular network of blood veins radiating into the body from the yolk. During this time the embryo draws calcium from the shell to strengthen developing bones. If the calcium in the shell is insufficient this can contribute to weaker bones, and problems such as splayed leg, soft flexible leg bones, and/or fractures forming within days after hatch. For good bone growth and strength these post hatch problems can be avoided by supplying food sources rich in calcium and trace minerals to the feeding parents.

Examine any eggs when they are laid.

Ideally what you want to see is a uniform color and smoothness to the shell. If there is any swirling to the shell that looks like alternating bands of pinkish and white this is an indication that not enough calcium was in the body as the shell was being formed. The pale areas of the shell are weaker and can be sources of moisture loss as the developing embryo grows and after pipping it will

draw from the calcium reserves of the shell. If there is insufficient calcium this can be seen by soft areas of the shell collapsing inward and appearing like large dents. If the shell is compromised and fluid is lost this can also result with a chick trapped in the shell which in turn can cause death if not assisted out.

If there are deposits of calcium on the exterior of the egg, which appear as gritty lumps adhered to the egg this could be an indication that there might possibly be an infection in the uterus (shell gland)

Small eggs with no yolks

If you candle the small egg you will not see the yellow yolk in it. Many times if the egg is forming in the oviduct the contents of the egg (Region 2 in the Illus) may have started to move downward in the oviduct before the yolk was dropped into Region 1. If this happens the egg is smaller and does not contain a yolk.

If there has been nothing that has stressed the hen during the laying process or she has not been handled, this may not be a problem. If so, there is a possibility the yolk could have missed entering the funnel in Region 1. If this happens then the yolk gets diverted into the abdominal cavity of the hen.

If you have a scale I would suggest that you weight the hen now. If a hen is ovulating and prior to laying she will gain approx 5-6 grams in weight. If there is a problem developing such as egg related peritonitis there would be approx a 10 gram increase and each day the weight would increase up to 7-10 days as much as 20 grams. This you do not want to happen.

How long does it take for a bird to make an egg?

Once the hen starts to ovulate they will lay an egg every other day. So the next egg will be approx 48 hours from when the shellless egg was laid.

Worst case scenario...The problem with the hen passing a shellless egg, and another one ovulating, even if you do supply good lighting, and calcium sources, the body does not have time to really build up body reserves in the bone. In such a situation the hen is at risk of having a thin-shelled egg stiff to the uterus inside, and as she strains to pass the egg, could also have a prolapsed uterus or tissues...which looks like a red tissue mass protruding from the vent. OR...if there if the blood calcium levels are low and the body draws from the bones the bones can become very brittle and hollow and the wings can break/snap while trying to fly.

If you have a vet I would strongly suggest that you go in ASAP and ask if they can give an injection of Calphosan.

Could this have caused her to lay early, before the shell had properly formed?

This would be more the cause for:

1. An Ectopic egg....meaning the yolk getting diverted into the abdominal cavity, which can lead to peritonitis.
2. If the forming yolk was ruptured from the movement it could get absorbed into the bloodstream and cause a stroke and/or death.

3. If the egg was in the upper oviduct it could cause a tear in the thin tissue and get diverted to the abdominal cavity.
4. If the egg has gotten as far as the shell gland and the disturbance occurred when the shell was being formed it could have broken, but the shell part would be adhered to the uterus and the next developing egg would impact on the matter in the oviduct. Several eggs can get impacted 1 on top of the other (broken soft shells stacked up) and contribute to egg-binding or prolapse. In this case the inside of the egg (yolk and white) would be seen on the cage/flight floor.

Do you have a low wattage bulb (40 watts) or night light on during the night outside? If not this would be helpful and cut down on any panicking during the night. I've learned that when a hen is laying movement, handling, and disturbances need to be kept at a minimum.

Grit is another way to provide minerals, but this is a controversial subject because there have been cases where mineral-deficient birds over consumed grit, impacted their crops, and died. The majority of advice on the internet is opposed to offering grit because of this. But there are respected experts who believe that grit is beneficial when used wisely.

Pellets are a processed manufactured food that is intended to be nutritionally complete, but it's not actually possible to have nutritional completeness in a single food. Although many parrot species have fairly similar nutritional needs, they are all a little different too. There are more than 300 parrot species and no one fully understands the nutritional needs of a single one of them, let alone all of them. Pellet formulas are based primarily on studies conducted for the poultry industry, which has very different goals for its birds than we have for our pets.

The problem doesn't end there. The nutritional needs of wild birds are very different than the needs of captive birds, who are much less active. There are many individual differences within a single species, depending on individual genetic makeup, age, sex, health, activity level, etc. There's no way to produce a pellet that provides perfect nutrition for every bird. Nonetheless, in the early days of pellets there was a push to give pet birds a 100% pellet diet, which led to the discovery that an all-pellet diet is as unhealthy as an all-seed diet.

Nowadays most pellet companies recommend a diet of 80-90% pellets, with the rest of the diet made up of vegetables and perhaps a small amount of seeds or nuts. Many veterinarians make similar recommendations, but there are good reasons to be skeptical about this advice. It's in the pellet companies' best interest to produce a quality product, since their future sales will suffer if they get a reputation for selling a food that makes birds die prematurely from nutritional problems. But profits are what matter the most so they want you to feed your bird the maximum amount of pellets, which may not be the optimal amount for your bird's health.

Most veterinarians have little education about avian nutrition, and depend on what pellet companies tell them and on what it says in their avian medicine textbooks. A major textbook on avian medicine was written by the veterinarian owner of a pellet company and there are anecdotal reports of other pellet companies having an influence on medical texts, so there's good reason to think that many vets are not receiving objective information about avian nutrition.

There is no doubt that pellets are beneficial when they are consumed in appropriate amounts, and many avian vets have seen dramatic improvements in their patients when pellets were added to the diet. The question is, how much is appropriate for cockatiels? No one knows for sure, but anecdotal

evidence from veterinarians seems to point toward 30-35% of the diet. The percentage might be higher for other species; it makes sense that cockatiels, who are adapted to a harsh environment, would do best on a diet that's not as rich as what rain forest birds get.

There are several different brands of pellets on the market. Most are designed to be nutritionally complete, although some of the smaller brands may not be. Some people prefer to avoid pellets with artificial coloring, although many cockatiels prefer the colored pellets. Nutriberries are nutritionally equivalent to pellets but look like seed balls, so many cockatiels accept them more readily than they accept standard pellets.

How do you teach a cockatiel to eat pellets and vegetables? Frequently the answer is SLOWLY. Don't listen to recommendations to take away the bird's regular food in an attempt to force it to eat the new foods, because this sometimes ends with the bird starving to death. It's all right to offer only the new foods for a couple of hours in the morning to encourage the bird to eat them, but the bird's regular food should be available for most of the day.

Birds that have learned to eat a variety of nutritious foods seem to display a sort of natural wisdom that leads them to eat the foods that they need at any given time. It might be necessary to limit certain foods that are beneficial in reasonable amounts, but are so delicious that your bird might want to overeat them.

Sunflower seeds are a good example. Sunflower has gotten a bad rap as birdie junk food, but this isn't true. Sunflower seed is actually very nutritious. But sunflower is also higher in fat than some seeds, which can cause problems if your bird eats too many of them. It's fine to let your bird eat sunflower but not good to allow unlimited quantities unless your bird has a special situation that calls for plenty of calories.

Cooked egg is another good example. It's highly nutritious and very delicious, but should be limited to small amounts because the fat and protein content is so high. Excessive protein causes kidney damage over time, so it's important to keep the amount of protein in the diet to a healthy level.

There may be situations where vitamin supplements are useful, but most of the time it's better not to use them. Vitamin supplements should NOT be given to a bird that is eating pellets/nutriberries because this can lead to vitamin overdose aka vitamin toxicity. When vitamins are added to the water the dosage is unpredictable, since it depends on how much was added to the water and how much the bird drinks. But vitamins in the water help promote the growth of bacteria. Vitamin-fortified seed is basically useless, since the vitamins are sprayed on the hull which the bird doesn't eat; but if the bird somehow manages to consume the vitamins on these seeds, then feeding vitamin supplements in addition to the seed will once again put the bird at risk of an overdose.

SAFE fruits and veggies

FRUITS:

(no pits or cores)

Apples

Apricots

Banana

Blackberries

Blueberries

Cantaloupe
Cherries
Coconut
Cranberries
Fig
Grapefruit
Grapes
Guava
Honeydew (melon)
Kiwi
Mango
Oranges
Papaya
Peaches
Pears
Pineapple
Plums
Pomegranates
Raspberries
Star fruit
Strawberries
Tangerines
Watermelon

VEGGIES:

Asparagus
Beans
Beets
Broccoli
Brussels sprouts
Carrots
Cauliflower
Celery
Chard
Chickpeas
Chicory greens
Cilantro
Collard greens
Corn
Corn
Cucumbers
Dark green lettuce
Endive
Kale
Lentils
Okra
Pak-choi greens
Parsley

Pumpkin
Spinach
Sweet peas
Sweet pepper
Sweet potato
Tofu
Turnip greens
Water chestnut
Watercress
Yellow squash
Zucchini

BEANS:

Most beans are safe however, thoroughly cook them to be safe. Anasazi, Black, Fava, Kidney, Lima, Navy, Pinto, and Soy especially have reports of being toxic and causing some digestive discomfort when uncooked. These should be limited if not avoided completely. Soy beans sprouted are OK but only when grown long enough. Lima beans, in my experience are OK as long as cooked well and not fed very frequently.

Foods To Avoid

Here is a starter list of foods that you should NOT feed your cockatiel. Most of these are HIGHLY poisonous and should not be given under any circumstance.

Alcohol
Avocado
Caffeine
Chocolate
Dairy Products
Eggplant
Fat
Food dyes
Fried Foods
Mushrooms
Nuts (brazil nuts, almonds, imported nuts that have been polished/dyed)
Pits/cores
Raw Egg Whites
Raw Lima beans
Rhubarb leaves
Salt
Soda
Soda Pop
Sugar (refined)
Sulfites (found in dried fruits and veggies to help preserve them-only from health food store)
White Flour (refined)

Avoid feeding high fat foods; excess fat over time can cause fatty liver disease, obesity, diarrhea and oily feather texture. Excess fat in the diet can also interfere with the absorption of other nutrients, such as calcium.

PLEASE wash all fruits and veggies as they probably contain pesticides!

Dangerous foods and plants

Toxic Foods

Alcohol
Avocado
Caffeine
Chocolate
Dairy products
Egg plant
Garlic
Mushrooms
Onion
Raw eggs
Rhubarb
Salt{in moderation is okay ie: cooking with}
Soda pop
Sugar
Tomato Leaves
Uncooked beans

Toxic Plants and Trees

AIR PLANT
AMANITA
AMARYLLIS
ANDROMEDA
ANGEL'S TRUMPET
APPLE TREE
APRICOT TREE
ARALIA
ARROWHEAD VINE
ARUM LILY
AUSTRALIAN
AUTUMN CROCUS
AVOCADO
AZALEA
BANEERRY
BIRD OF PARADISE
BISHOP'S WEED
BITTERSWEET NIGHTSHADES
BLACK LAURELL

BLACK LOCUST
BLACK NIGHTSHADES
BLEEDING HEART
BLOODROOT
BLUEBONNET
BLUEGREEN ALGAE
BOX ELDER
BOXWOOD
BRACKEN FERN
BREECHES
BROAD BEAN
BROOM CORN GRASS
BUCKTHORN
BURDOCK
BUSH
BUTTERCUP
CACAO
CALADIUM
CALLA LILY
CAMEL BUSH
CANARY BIRD BUSH AKA CROTALARIA
CANDELABRA
CANNABIS aka MARIJUANA (seed are safe)
CARDINAL FLOWER
CASTOR BEAN
CEDAR
CHALICE AKA TRUMPET VINE
CHERRY TREE
CHINA BERRY TREE (MELIA / TEXAS UMBRELLA TREE)
CHINESE MAGNOLIA
CHINESE POPCORN (TALLOW)
CHINESE SNAKE TREE aka LACQUER PLANT
CHRISTMAS CANDLE
CLEMATIS aka VIRGINIA BOWER
CLIVIA
COCKLEBUR
COFFEE PLANT (all)
COFFEEWEED
COMMON SAGE
CORAL PLANT
CORIANDER
CORNCOCKLE
COWSLIP
COYOTILLO
CROTALARIA
CROWN OF THORNS

CUCKOOPINT
CUTLEAF PHILODENDRON
DAFFODIL
DAPHNE
DATURA STRAMONIUM
DEADLY NIGHTSHADES
DEATH CAMUS
DELPHINIUM
DEVIL'S IVY
DIEFFENBACHIA aka DUMB CANE
DUTCHMAN'S
EGGPLANT (all)
ELDERBERRY
ELEPHANT EAR aka TARO
ERGOT
EUCALYPTUS (treated and dyed for floral arrangements)
EUONYMUS aka SPINDLE TREE
EUPHORBIA
EUPHORBIA CACTUS
FALSE HELLEBORE
FAVA BEAN
FELT PLANT
FIG (WEEPING)
FIRETHORN aka PYRACANTHA
FLAMETREE
FLAMINGO FLOWER
FOUR O'CLOCK
FOXGLOVE
GARDEN NIGHTSHADES
GLORY BEAN
GLOTTIDIUM
GOLDEN CHAIN TREE
GROUND CHERRY
HEART-LEAF PHILODENDRONS
HELIOTROPE
HEMLOCK (POISON & WATER)
HENBANE
HOLLY
HONEY LOCUST
HONEYSUCKLE
HORSE BEAN
HORSE CHESTNUT
HORSE TAIL
HOYA
HUCKLEBERRY
HYACINTH

HYDRANGEA
IRIS
IVY (all)
JACK-IN-THE-PULPIT
JASMINE (JESSAMINE)
JERUSALEM CHERRY
JIMSONWEED
JOHNSON GRASS
JUNIPER
KALMIA aka MT. LAUREL
KALMIA HEATHS
KENTUCKY COFFEE TREE
KUMQUAT
LANTANA aka RED SAGE
LARKSPUR
LAUREL
LEUCOTHO HEATHS
LILY OF THE VALLEY
LIMEMOCK ORANGE (The fruit)
LOBELIA
LOCOWEED aka MILK VETCH
LORDS & LADIES
LUPINE
MALANGA
MANDRAKE
MANGO TREE (fruit is safe)
MATERNITY PLANT
MAYAPPLE
MESCAL BEAN
MEXICAN BREADFRUIT
MEXICAN POPPY
MILKWEED
MISTLETOE
MOCK ORANGE
MONKSHOOD
MONSTERA
MOONSEED
MORNING GLORY
MOUNTAIN LAUREL
MUSHROOMS (all)
MYRTLE (this is a broadleaf evergreen; not crape myrtle)
NARCISSUS
NAVY BEAN
NECTARINE TREE
NETTLES
NUTMEG

OAK
OLEANDER
OXALIS
PANDA PLANT
PEACE LILY
PEACH TREE
PEAR TREE
PEIRES
PENCIL TREE
PERIWINKLE
PIGWEEED
PITCH PINE
PLUM TREE
POINCIANA
POINSETTIA
POISON HEMLOCK
POISON IVY
POISON OAK (WESTERN & EASTERN)
POKEWEED
POTATO SHOOTS
POTHOS
PRARIE OAK
PREGATORY
PRIVET
PYRACANTHA
RAIN TREE
RANUNCULUS
RAPE
RATTLE BOX
RATTLEBUSH
RED MAPLE
RED SAGE aka LANTANA
REDWOOD
RHODODENDRON
RHUBARB
ROSARY PEA SEEDS
ROSE
SAND BOX TREE
SCARLET RUNNER BEAN
SENNA COFFEE
SKUNK CABBAGE
SNOW DROP
SNOW ON MOUNTAIN
SOLANUM (JERUSALEM CHERRY & PEPINO)
SOPHORA (JAPANESE PAGODA TREE & MESCAL)
SORGHUM GRASS

SORREL
SPLIT LEAF PHILODENDRONS
STAR OF BETHLEHEM
SUDAN GRASS
SWEET PEA FLOWER NOT THE VEGETABLE
SWISS CHEESE PHILODENDRONS
SWISS CHEESE PLANT
TANSY
TANSY RAGWORT
TOBACCO
TOMATO PLANT
UMBRELLA TREE
VETCH: HAIRY/COMMON
VIRGINIA CREEPER
WALNUT TREE
WATTLE
WEeping FIG
WHITE CEDAR (CHINA)
WISTERIA
WITCH HAZEL aka GENUS HAMAMELIS
WOODY NIGHTSHADES
YELLOW JASMINE
YEWS

Cockatiel Common Diseases

Pacheco's Virus

It is easy to diagnose your cockatiel if Pacheco's Virus infects it. The bird needs to be administered a strong oral dose of Zovirax medication. Vaccines are easily available for this disease, but they can bring about tumors and carriers. Evidence shows that parrots are likely to die shortly after inoculation.

Polyomavirus

Polyomavirus largely attacks the young ones. This virus is again air-borne and complicated to control. Look for clinical warning signs like depression, delayed crop emptying, anorexia, diarrhea, regurgitation and weight loss in parrots.

Beak and Feather Syndrome

Spread by feather dust and dried feces, parrots infected with PBFDS show abnormal growth of new feathers. The new-fanged shafts look as if swollen and gnarled. Another type of PBFDS symptom that is quite prevalent is growth abnormality of the beak. There is currently no known cure for this disease.

Wasting Disease

A highly contagious disease Wasting Disease is not as fast in opening out as Pacheco's. Wasting Diseases are hard to reckon since they lie dormant for years, until hosts are on a move. Studies on parrot show Wasting Diseases have a severe effect on nervous systems extended to all of the major organs, triggering seizures, paralysis, and tremors, and also heart attacks. There is no known medication available for Wasting Disease, but changing the food patterns of the parrots by including easily digestible diet supplements may prolong the life of a victim.

Papilloma

Appearing primarily in the throat or vent areas, papilloma is caused by a virus infection similar to warts. It grows large enough to block the vent, making it difficult or even impossible for the host to defecate. Parrots diagnosed of Papilloma can be cured after successful laser surgery.

Psittacosis

Psittacosis is another most dreaded bacterial infection that commonly occurs in the cockatiels and is transmitted via feather dust and dried feces.

Chlamydiosis

Chlamydiosis is a zoonotic disease caused by the bacteria chlamydia. This is a reportable disease that can be found in some imported, aviary and pet store birds. Wild and domestic as well as poultry are susceptible to chlamydiosis. Birds that can carry and or contract the disease include parrots, canaries, chickens, ducks, turkeys and pigeons.

Signs and Symptoms

Symptoms are often stress induced. Being hidden until a stressful event such as travel, weaning or other illness weaken the birds immune system.

Symptoms present very similar to respiratory infection. These include:

- breathing difficulties
- conjunctivitis (this is a dead give away of the disease)
- diarrhea
- drowsiness
- lime green feces
- severe and or sudden weight loss
- shivering

Infected birds shed the bacteria in the fecal droppings and nasal discharge. The bacteria remains contagious for quite sometime. It is contracted by either inhaling the dust of droppings or ingestion of droppings.

Chlamydiosis can be transmitted to humans in the same manner. This is why proper aviary management and bio security measures are crucial.

Symptoms presented by humans is as follows:

- sudden and/or severe fever

- chills
- weakness and/or fatigue
- cough
- muscle pain
- appetite loss
- nausea
- vomiting
- diarrhea
- headache
- sweating
- abnormal intolerance to light

Though the disease can result in death, fatal cases are extremely rare. Generally symptoms present like a mild case of the flu.

The CDC (Centre for Disease Control) reports that between 2000-2006 only 125 cases of Psittacosis were reported. In Canada it is reported to be below 1 in 100 000 cases.

My findings are that yes it is possible for human beings to become infected with Psittacosis, however due to tighter government restrictions, reporting protocol and proper aviary management procedures it is highly unlikely.

Proper Aviary Management and BioSecurity Procedures

In order to prevent the occurrence of avian Psitticosis in your home aviary (Under 15 birds) hygiene is of utmost importance. Cage bottoms should be cleaned daily. Paper changed and trays washed in hot water with an effective anti-bacterial soap. Bleach, boiling water, lysol ect... are all effective means to kill the chlamydia bacteria. Cage bottoms, trays and bars should be disinfected weekly, as should toys and perches. Food and water dishes should be sterilized and washed daily. Stainless steel dishes are best used in place of plastic. In particular for water or wet soft foods. Newspaper is best used as a cage liner and where birds are paper chewers a grate is used effectively.

An air filtration unit is best used in rooms where birds are kept. Pay careful attention to purchase a HEPA filter or one that filters out dust, as well as bacterias.

Avoid overcrowding in cages. Be sure to feed a healthy well balanced diet. Weigh birds at least once per week as a rapid decrease in normal body weight is often the first sign of illness. Know what symptoms to watch for, observe your birds and their droppings.

Wash your hands before and after handling and or feeding your birds. Use discretion as to whom is in contact with your birds. Avoid visiting areas where other strange birds are frequently present with your birds (ie. pet stores, bird fairs etc...).

When purchasing a new bird buy from an experienced well known or researched breeder that maintains a closed aviary. Make sure to quarantine any new bird for minimum 30-45 days. This is best done in a separate floor of your home or another building where no birds are present. During quarantine be sure to weigh and observe the new bird for any signs of illness. Get to know them. Again be sure to wash your hands after handling, feeding and cleaning the new bird's area. Change your clothes or better yet have a specific smock (or lab coat) for handling the new bird. Always handle and feed your birds in the order you received them (new birds last)!

If An Infection Occurs

If a test shows that one of your birds is infected relax. Antibiotic treatment has proven to be effective against the disease. Be sure to follow your vet's instructions to the letter. Usually your bird(s) will be put on a course of antibiotics for 45 days. Though symptoms will likely clear up soon it is important to follow through the full course as relapse is common. Isolate the infected bird(s) from any others and completely disinfect the cages and cage area's with a strong cleanser. This includes toys, perches, food and water dishes etc... When cleaning be sure to wear thick rubber gloves and a facial mask. Follow this practice when handling infected birds as well.

Let your doctor know that you have been in contact with an infected bird and follow his/her recommendations. Usually this will include blood work and close observation. Pay careful attention for the symptoms listed above. Both your vet and your doctor will need to report the details of infection to either the CDC (US) or Health Canada. This is just as a precaution to help prevent an outbreak and further spread of this disease. Do not let this alarm you. Ask questions if you are unsure of something. If you do not understand what is being explained ask for clarification.

E-coli

This bacterium is not so lethal if it is acknowledged and treated at initial stages. In fact, when cockatiels are diagnosed of having Ecoli their droppings usually have the appearance of diarrhea, giving out strong odor.

Gout

Calcification of the kidneys among the parrots is common especially among the babies who are aged 4-8 weeks. In such cases, victims rarely survive. Initially they show regurgitating and slight dehydration after feedings. In addition, babies who appear slightly smaller than their regular sizes, with protruding neck bone have the largest possibility of incurring Gout.

Runny Nose or Nasal Discharge

The most common of all nasal discharge is laxity of Vitamin-A in cockatiels. This deficiency can be corrected by increasing the food quantities that are rich in vitamins and mineral contents especially.

Giardia

Giardia is a parasite found in both drinking and recreational water and lives in the intestinal tract of numerous infected species, which could be people, birds and other animals.

Birds: This parasites has infected any species of bird, although it is most often found in cockatiels, lovebirds, budgies, and Grey-cheeked parakeets. Giardia can survive for a substantial amount of time in the environment, so infection can occur simply by placing a bird in a contaminated environment (cage, aviary, etc.).

Giardia is usually asymptomatic or causes relatively mild symptoms. Once an animal or person has been infected, the parasite lives in the intestine and is passed in the stool. Because the parasite is protected by an outer shell, it can survive outside the body and in the environment for long periods

of time. Giardia infection has become recognized as one of the most common causes of waterborne disease in the United States.

Physical Symptoms:

Birds: Skin may become very dry and itchy, and this caused them to pick out their feathers. The common giardia picking pattern usually involves the chest, underside of the wings, insides of the thighs, shoulders and sometimes the lower back region. Asymptomatic carriers may exist, and serve as sources of infection for other birds.

Aspergillosis

Aspergillosis is a respiratory disease of birds caused by the fungus *Aspergillus*, which is found almost everywhere in the environment.

A. fumigatus is the most common species of the fungus to cause disease, although *A. flavus*, *A. niger*, and others can also cause problems. *Aspergillus* grows readily in warm and moist environments. The microscopic spores of the fungus become airborne, and poor ventilation, poor sanitation, dusty conditions, and close confinement increase the chance the spores will be inhaled.

Usually, the fungus does not cause disease, however, if a bird does not have a healthy immune system, it can cause illness. Predisposing factors include other illnesses, stress, poor nutrition, poor husbandry or unsanitary conditions, another injury to the respiratory system (e.g.; smoke inhalation), and prolonged use of certain medications such as antibiotics or corticosteroids.

The combination of the number of spores in the environment and the presence of predisposing factors determine which birds are most at risk of disease. Aspergillosis appears to be more common in parrots and mynahs than other pet birds.

Avian Influenza (Bird Flu)

Mosquitoes, ticks and other biting insects can transmit several diseases to mammals and birds.

The bird flu, also known as avian influenza, is caused by a very dangerous strain of the virus H5N1, which has not yet been diagnosed as an epidemic in the U.S.

The virus is spread in the secretions of infected birds, so owners should take every precaution to prevent birds from exposure to oral or nasal secretions or the droppings of wild birds. Outbreaks appear to coincide with rainy seasons and the proliferation of mosquitos. Mosquito nettings over outside enclosures are recommended.

Ringworm

A single bird was seen with a patch of feather loss on one side of its body associated with a thick, grey, flaky skin. This proved to be a case of ringworm due to infection with a *Trichophyton* fungus. The disease should have been curable but the owner did not want the treatment carried out.

Proventricular Dilatation Disease(PDD)

It is a virus that attacks the nervous system. Signs include GI problems that don't go away with treatment, loss of coordination and balance, and becoming nonreactive to stimulus (stare at nothing even if you wave a hand in front of them).

The virus can lay dormant for many years (6 to 10 is what my vet said) but is believed to be able to infect other birds during the dormant period.

It is fatal if not treated. Treatment requires medication for as long as 2-3 years. If treatment is successful, it makes the virus dormant again but not all birds respond to treatment. However, the damage done by the disease is permanent.

A blood test is needed to verify the disease but it tends to give a false negative when the virus is dormant. In some cases the blood test will be negative when the virus is active and cannot be detected until the bird dies and they test the brain.

Avian Vet needs, how to find one, how to tell if you really have one.

Every time I talk to bird owners, I emphasize the importance of having one's pet bird checked out yearly by an avian veterinarian. Indeed, I generally refuse to work with a parrot with a "behavior problem" until after the owner has had the animal thoroughly checked out. After all, many so-called behavior problems are actually manifestations of physical problems.

I also routinely hear stories about veterinarians seeing birds who apparently do not have a great deal of information about them. A recent example would be the parrot who was diagnosed as having allergies simply because he had a runny nose -- but that diagnosis was evidently made by just looking at the outside of the animal. From the owner's description, no diagnostic testing was done. According to the Association of Avian Veterinarians (the AAV), bacterial infections are the most common cause of runny noses in pet birds, NOT allergies, and testing needs to be done identify the specific bacteria and the most effective antibiotic with which to treat it (bacterial culture and sensitivity testing). When I questioned the bird's owner further, she admitted that she didn't think this vet was a "real" bird vet.

Consequently, I am often asked just how a lay person is supposed to find a vet who is knowledgeable about birds, as opposed to a vet who will see birds...and how can a lay person tell the difference.

Disheartening Survey

When people get a new dog or cat, most of them know to seek veterinary care for their new pet. According to a survey done in 1989 for PET AGE MAGAZINE, 60% of dog owners and 68% of cat owners have their animals checked by a veterinarian. However, the same survey found that only 7.6% of bird owners take their animals to avian veterinarians, and that 92% of their respondents take their sick birds to pet stores to be treated.

Pet Stores and Pet Store Medications

These numbers are incredibly depressing, considering the fact that the average pet store employee has neither the training nor the qualifications to treat sick birds safely and effectively, nor does (s)he normally have access to the most effective drug therapies available. From my own experience, over-the-counter pet store medications at best only mask signs of a problem without correcting the underlying cause -- and at worst, these "drugs" waste valuable time that a sick bird simply does not have. They can also alter the results of proven avian diagnostic techniques such as bacterial culture and sensitivity testing as well as blood tests for chlamydiosis ("Parrot Fever").

Suffice it to say, if your foot is broken, you don't go to a shoe store for treatment. A corollary of this rule is that you don't take a sick dog to a cow vet - so you shouldn't take your sick bird to a dog vet.

So What Exactly Is An Avian Veterinarian?

Contrary to what many people seem to think, most veterinarians are NOT trained in veterinary school to deal with every species of animal they might come across in private practice. They are required to learn about the domesticated animals (dogs, cats, horses, cows, etc.), but not what are termed exotic animals.

Most veterinary schools have a course in avian medicine, for example, but in most cases that course is classed as an "elective." In other words, veterinary students are not required to take it. They take the course only if they have a specific interest in these other types of animals. Also, not all veterinary schools even work with exotics. For example, for the last several years, the Veterinary Hospital of the University of Pennsylvania doesn't treat any species of exotics in their small animal facility in Philadelphia -- they treat only dogs and cats. Consequently, no matter how interested they might be, vet students at the U of P will get no hands-on experience with exotics unless they have spent part of their training in other facilities.

A Rare Bird

Avian vets are extremely dedicated individuals who, in their copious free time (joke) have sought additional training in the relatively new field of avian medicine. They are members of the AAV, so that they have access to all the most current medical information about birds. This is really important, since new information is discovered all the time, and we all want our birds to benefit from "state of the art" avian veterinary medicine.

So How Do You FIND These Vets?

You can find these specialized veterinarians by asking around, but make certain you are asking reputable sources for information. Do not automatically assume that the veterinarian recommended by a store or breeder is the best vet for your pet. For example, there is a large bird store in my area, and they use to void the guarantee on a sale if buyers took their new bird to the only board certified avian specialist in the area. The store preferred to refer their buyers to area vets who do not apparently always do the diagnostic testing recommended by state-of-the-art avian medicine (as outlined by the AAV). From my own experience, this sort of thing happens when a facility is famous with local avian vets for selling sick birds. (I heard recently that this facility also badmouths me, and that tells me I must be doing something right!)

It should be mentioned that most avian veterinarians also care for the other animals defined by veterinary medicine as exotics -- such as reptiles, ferrets, amphibians, etc.. This does not mean they are not avian vets. There are few vets who can survive financially by seeing ONLY birds. There are also plenty of very competent avian vets who also treat dogs and cats.

It is perfectly valid to ask what percentage of a vet's practice is made up of birds. That will tell you how much experience the vet actually has with birds. If he or she only see one or two birds per month, for example, you may wish to go elsewhere. However, if you find a veterinarian who tells you he or she knows little about birds but would like to learn, that's ok. That person generally knows when to ask someone more experienced for help, and most of the top avian vets in the country are accessible by phone. It's the veterinarians who won't admit they don't know that really scare me.

And an extremely important question to ask is "What was the most recent continuing education avian veterinary seminar the vet attended?" This is really important because it will tell you just how committed a veterinarian is to providing the highest quality avian medicine possible. There are plenty of who are happy to take your money to see your companion bird. There are fewer veterinarians that are willing to spend their own money and their own time to attend a continuing education seminar having to do with birds. My own parrot deserves state-of-the-art medicine, and yours does, too.

How To Tell If You REALLY HAVE An Avian Vet

So there are lots of vets out there who will "see birds" who have perhaps less knowledge than one might wish. The following are a few tips that may help you differentiate between these people and their more knowledgeable colleagues. You don't necessarily have a REAL avian vet if:

1. When you call for an appointment for a sick bird, the receptionist tells you it's too cold to bring a bird out. The vet may be experienced with birds, but his or her support staff is not. There are plenty of easy tricks to keeping a bird warm in transit -- which is definitely preferable to allowing the bird to die at home without professional help.
2. When you arrive at the hospital for your appointment and nobody knows what kind of bird you have. If you have a rare species, be fair -- but if they think your cockatiel is a cockatoo, there's a problem.
3. Everyone at the hospital is afraid of your two month-old baby macaw. Many bird vets have difficulty finding experienced avian technicians -- but the vet must know how to handle the animals if his/her support staff does not. If everyone on staff is afraid of a baby, no matter how big, then they have little or no experience with parrots.
4. The veterinarian does not remove the bird from its cage to do a full physical exam. The days of diagnosing from the outside of the cage are gone. To do competent avian medicine, a vet has to do a proper physical exam, and to do that, a vet must TOUCH the animal.
5. The veterinarian does not weigh your bird. Properly equipped avian vets will have an accurate gram scale with which to get weights on their patients every time the bird comes in. A current, accurate weight is not only necessary to properly calibrate a medication dose, but also to help the vet evaluate the overall condition of the animal. From my experience, "Feeling the keel" does NOT provide sufficient information.

6. The veterinarian and/or support staff does not spend considerable time discussing proper diet with you. The most common cause of medical problems seen in avian medicine in this country is STILL malnutrition, therefore proper diet is crucial and should be discussed in depth.
7. They schedule bird appointments every 10-15 minutes. There is a tremendous amount of time involved when seeing birds -- the avian vets I know schedule bird appointments for a minimum of 30 minutes, with most lasting considerably longer than that.
8. They don't think annual check-ups are necessary. The AAV recommends annual visits, especially with very young or old birds. A vet in my area recently told the first-time parrot owner of an unweaned macaw chick that he didn't need to bring the baby back in "unless he thought there was a problem." As far as I am concerned, that is very bad advice. Weaning is an extremely stressful period in a parrot's life, and a brand new parrot owner often doesn't know there is a problem until it has reached emergency status. This is NOT the best thing for the bird!
9. They consider a beak trim to be just as routine as a nail trim or wing clip. Generally speaking, a normal parrot beak does not ever need trimming, whether the bird chews on a "beak conditioner" or not. A change in the growth pattern of a parrot's beak could be indicative of a medical problem.
10. With a new bird check-up, the vet does a physical exam and pronounces the bird "healthy" without recommending any diagnostic testing. A properly done physical exam can tell an experienced avian vet a great deal, but by itself it simply isn't enough. Diagnostic testing must be done to rule out the possibility of latent disease.

The Grand Tour

If possible, ask for a tour of the hospital. Schedule one for later if the hospital is busy. If your veterinarian is serious about avian medicine, you should see some basic equipment:

- a gram scale capable of weighing even tiny birds with great accuracy (already mentioned)
- incubator cages for hospitalized birds
- proper diet for hospitalized birds -- not just "parrot mix" and pellets, but vegetables and fruits, also.
- Ideally, a separate room for hospitalized birds, away from dogs & cats.

Proper Teaching

If your bird is sick and the vet wants you to medicate at home, it is incredibly important that you should be properly taught how to accomplish this. You should NOT, for example, be told with oral medications to "squirt it in the back of the mouth." Medicating by mouth incorrectly can lead to aspiration pneumonia and death, so it is critical (understatement) that you be instructed correctly.

Unrelated But Important

While I'm on the subject of avian veterinarians, I do want to mention something that is basically unrelated but extremely important. DO NOT ASSUME that your avian vet will be available off-hours if you and your bird have an emergency. After all, emergencies rarely happen during the working day. So an important question to ask is how does your avian vet deal with emergencies? Are they available 24 hours a day, 7 days a week? If so, you can be sure they won't be for long --- NO ONE can live like that forever. If not, to whom do they refer? Does that hospital have experience with birds? If your vet does not have emergency back-up for avian patients, then you need to find someone who does. The LAST thing you need to do is to wait for an emergency to happen, and THEN start looking around for a bird vet. ASK YOUR AVIAN VET ABOUT EMERGENCY COVERAGE NOW.

In Conclusion

If your veterinarian fulfills all these criteria, chances are excellent that you have a qualified avian practitioner. Stick with him or her, be patient if they don't call you back in two minutes if you have a question. Ask them to explain things you don't understand, especially when it comes to the care of your bird. Be reasonable and don't expect them to spend hours on the phone with you answering every little question you might have. But most importantly, please, when it comes to the treatment of your animal, follow their instructions to the letter. The best avian veterinarians in the world can accomplish little without the full cooperation of their clients.

Signs Of A Sick Cockatiel

I thought I would put together a list of symptoms to look out for, Cockatiels in the wild that are ill are sure to be prey so they are very good at hiding there illnesses, I always say you should go with your first instinct if you suspect something isn't quite right it usually is and you should seek out an avian vet for help.

1. Inactivity or loss of interest, any change in normal activity
2. Loss of appetite
3. Change in colour or consistency of droppings not associated with foods you have added to there diet for example fruits and vegetable can make the droppings watery.
4. Feathers fluffed up for most of the day
5. Sitting in the corner or on the bottom of the cage with eyes closed
6. Constant shivering or labored breathing
7. Discharge from the nose or eyes
8. Sudden lose of feathers not associated with normal molting
9. Weight loss
10. Vomiting
11. Feather plucking

12. Lumps or any swelling on the body

13. Disorientation or falling of perch

If your new cockatiel won't eat

It's normal for a new bird to be scared in a new home, and many will be too frightened to eat at first. Some birds will go without food for three days, which is very hard on the bird and is also hard for the humans to watch.

Fortunately there are some simple things that you can do to make your bird start eating sooner. The first and most important step is to hang a piece of millet spray and some leafy greens in the cage close to the place where your bird likes to sit. Your bird is a prey animal and has been instinctively watching out for danger ever since he arrived. He would have to let his guard down for a moment to put his head in the food cup, and this is scary. But he can nibble on hanging food and watch for danger at the same time, which feels a lot safer to him. The millet spray provides nice healthy calories and the greens are a good source of moisture for birds who are afraid to use their water cup.

There are other things you can do to make your bird feel safer. Covering the cage on three sides can be helpful, because then the bird only has to watch for danger in one direction. It can be helpful to put the cage in a quiet place at first because he'll feel safer in a location where there isn't too much activity for him to watch. You can move the cage to a more active location when he's comfortable enough to eat from the food cup. When you're near the cage, keep your movements slow and smooth and talk in a gentle voice. When you look at the bird don't use a long silent stare, because this is what predators do when they're getting ready to strike. Talk while you're looking, and frequently look away for a moment. If you drop a small clump of millet spray into the food cup when you're near the cage, it will help the bird realize that good things come from you.

Eventually your new bird will feel brave enough to eat from the seed cup, but at first he might not be bold enough to do it in front of you. So check the food cup from time to time to see if anything has been eaten, and you'll know when your bird has reached this milestone.

SAFE PLANTS & TREES

Acacia

African Violets

Alder

Almond

Aloe

Apple

Arbutus

Areca

Ash

Asparagus

Asparagus Fern

Aspen

Australian Umbrella Tree

Baby's Tears

Bamboo
Basil
Bear's garlic
Beech
Begonia
Birch
Bird Nest Fern
Bois d'arc
Borage
Boston Fern
Bottle Brush
Bougainvillea
Bromeliads
Burnet
Butterfly Cane
Carrot
Chervil
Chickweed
Chives
Christmas Cactus
Cissus Kangaroo Vines
Citrus (any)
Coffee Tree
Coleus
Coriander
Cork Oak
Corn Plant
Cottonwood
Crabapple-branch only *the fruit/seeds are toxic*
Creeping Charlie
Cress
Dandelion
Date
Date Palm
Deer's Foot
Dill
Dogwood
Donkey Tail
Dracaena
Dragon Tree
Easter Cactus
Elephant Foot Tree
Elk's Horn
Elm
Eucalyptus
European Fan

Fan
Fennel
Fig Species
Fiji
Fir
Fishtail
Fruitless Mulberry
Ginkgo
Gold Dust Dracaena
Grape Palm
Grape Vines
Guava
Hackberry
Hawthorn
Hazelnut
Hibiscus
Hickory
Holly Berries
Horse Apple
Howeia
Ironwood
Kentia
Lady
Lady Palm
Larch
Lilac
Liquidambar
Lovage
Madrona
Magnolia
Maidenhair
Manzanita
Maple
Marjoram
Mediterranean Laurel
Mesquite
Mimosa
Mint
Mint
Motherfern
Mulberry
Norfolk Island Pine
Nuts (except chestnut and oak)
Oregano
Papaya
Parlour

Parlour
Parsley
Passion Flower Vine
Pear
Pecan
Peperomia
Petunia
Pine
Pittosporum
Polypody
Pony Tail Palm
Poplar
Pothos
Prayer Plant
Purple Passion
Purslane
Pygmy Date
Pyracantha (Ripe Berries Only)
Red-Margined Dracaena
Rhaps
Ribbon
Ribbonwood
Roebelin
Roquette
Rose
Rosemary
Rubber Plant
Sage
Sago
Sago Palm
Sassafras
Savory
Schefflera
Sensitive Plant
Sentry Palm
Sequoia (Redwood)
Snake Plant
Spider Plant
Spruce
Squirrel's Foot
Staghorn
Swedish Ivy
Sweet Gum
Sword
Sycamore
Tarragon

Thanksgiving Cactus
Thistle
Thurlow
Thyme
Toyon Tree
Tree Fern
Umbrella Plant
Vine Maple
Wandering Jew
White Clover
Willow
Wine Palm
Yucca
Zebra Plant

Lighting, Diet, and Vitamin D3

Vitamin D3 is an essential nutrient that plays a vital role in calcium absorption. But the body acquires this vitamin in an unusual way, which means that it can sometimes be difficult to provide this vitamin to our birds.

Sunshine

Wild birds get their vitamin D primarily through a biochemical reaction with sunlight. When the bird preens, it puts oil from the uropygial gland on its feathers. This oil contains a vitamin D precursor which is converted to a weak form of vitamin D3 by ultraviolet (UV) light from the sun. The bird ingests the precursor (cholecalciferol) during preening and it is converted to true vitamin D3 (1,25-dihydroxycholecalciferol) in the body.

When sunlight passes through window glass and window screens they filter out most of the ultraviolet, so sunshine that passes through a window will not help our birds produce the vitamin D they need. Direct unfiltered sunlight is required.

It's hard to find information on how much sunlight a bird needs for vitamin D production, but the recommendations seem to range from 30 minutes a week to 30 minutes a day.

Use sensible precautions when giving your bird sunlight. Avoid temperatures that are too hot or too cold, and always provide a shady spot that your bird can retreat to if it's uncomfortable. Guard against hazards like escapes, predators, and exposure to germs and dangerous objects.

It's difficult for many pet owners to give their birds enough exposure to natural sunlight to meet their vitamin D3 needs. But fortunately there are other ways to provide it.

Diet

Poultry industry practices have proved that dietary sources of vitamin D3 are a very effective way to provide this vital nutrient. But there aren't very many natural food sources of vitamin D3 - mostly certain types of fish oil, liver, eggs, and fortified foods like milk. Egg is the only item on that list that is normally offered to birds, and the amount of egg in the diet should be limited to avoid problems from excessive amounts of cholesterol, fat, and protein.

But pellets and Nutriberries are an excellent dietary source of vitamin D3. These manufactured processed foods are designed to be nutritionally complete, and will provide adequate D3 if your bird is willing to eat a sufficient quantity of them.

Vitamin D2 is found in plant sources including the grains and seeds that make up much of the diet of species including cockatiels, budgies, and conures. But this form of the vitamin is not utilized well by birds.

Caution must be used with dietary D3 supplements. It is impossible to overdose with light-based D3 sources. But supplemental (dietary) D3 is a fat soluble vitamin, which means that amounts that are not used immediately are stored in the body. If fed in excess it can lead to vitamin toxicity and can contribute to hypercalcemia (too much calcium in the blood), which affects the heart, liver, kidneys and other organs, and contributes to gout. Pellets and Nutriberries already contain appropriate amounts of D3 and calcium, and if you are feeding these foods you should never give vitamin supplements containing D3, calcium, or other overdose-prone nutrients.

It's all right to provide a calcium source such as cuttlebone or mineral block to birds with a varied diet (seeds, vegetables, less than 50% pellets), and to provide bird-safe levels of UVB light in addition to dietary sources of vitamin D.

Full Spectrum Lighting

Full spectrum lighting provides ultraviolet light and is generally believed to be a good substitute for natural sunlight. But its usefulness for birds has not been documented scientifically, and there are some questions about its effectiveness for vitamin D purposes. So it would be wise to use it in conjunction with proven sources (sunlight and/or diet) to help assure that your bird's vitamin D needs are being met. The possible benefits of FS lighting go well beyond the vitamin D issue, so it should be considered for indoor birds even if their vitamin D needs are being met in other ways.

The UVB issue

Ultraviolet light is divided into three subcategories: lower wavelength UVA, middle wavelength UVB, and higher wavelength UVC. UVB is the wavelength involved in vitamin D synthesis.

Dr. Patrick Thrush is generally considered to be the leading authority on birds and lighting, so his opinions will be extensively considered here. However, he did his work in the 1990s so it may be somewhat outdated at this time - see his website at

<http://web.archive.org/web/20080318214648/http://users.mis.net/~pthrush/lighting/> for a full list of articles. His doctorate is in sociology and he is/was a professor at the University of Kentucky, so he did his work on birds and lighting as an interested amateur not a professional scientist. But his work

is respected and several of his articles appeared in the NCS (National Cockatiel Society) Journal. The articles most relevant to the current discussion are:

The Ultraviolet Myth

<http://web.archive.org/web/20051109152749/http://www.users.mis.net/~pthrush/lighting/uvmyth.html>

Lighting and Your Bird

<http://web.archive.org/web/20080207010024/http://users.mis.net/~pthrush/lighting/ncsj1.html>

Why Use Artificial Light

<http://web.archive.org/web/20080202175108/http://users.mis.net/~pthrush/lighting/whyuse.html>

Bird Lighting Hotspots

<http://web.archive.org/web/20110326044419/http://users.mis.net:80/~pthrush/lighting/hotspots.html>

Light Right/Using FS Lighting with Birds

<http://web.archive.org/web/20090201023151/http://users.mis.net/~pthrush/lighting/spectrum.html>

Dr Thrush discounts the importance of UVB for vitamin D purposes and seems to feel that the vitamin D2 from seeds is a good source of raw material if the bird also has access to dietary sources of D3. He feels that providing a consistent visually-balanced light source for birds is more important to their health and well-being than attempting to use UVB as a dietary supplement.

He believes that full spectrum lighting is important for regulating the bird's general biochemistry and metabolism and to provide an appropriate visual environment. UVA is part of the visual spectrum of birds so it makes sense that having it will contribute to their well-being.

UVA travels farther than UVB, so distance from the cage is less important for UVA purposes than it is for UVB. The ideal goal is to provide 100 lumens of intensity per meter squared, which is probably incomprehensible to the average bird owner.

Many bird owners have reported improved mood, energy, and feather color after they started using full spectrum lights, which may be due to the general similarity to natural sunlight rather than anything specifically related to UVB.

Many avian veterinarians recommend full spectrum lighting but there are some who don't think it is useful. The reason for these doubts might be the problems involved in delivering the UVB. For vitamin D3 purposes the light must be placed within two feet of the bird since the UVB doesn't travel very far, and the bulb's ability to produce UVB declines rapidly in a fairly short period of time (usually 3 to 6 months), long before there are any problems with the rest of the bulb's output.

Because the bulb has to be placed so close to the bird for UVB purposes, it is important to have an area in the cage where the bird can get out of the glare if it wants to.

What characteristics should the light have?

There is a lot of conflicting information about what kind of full spectrum lighting is best for birds. But it seems to be generally agreed that the following is ideal:

It should have a CRI (color rendering index) of 90 or more, preferably 95-98. Natural sunlight has a CRI of 100.

A color temperature of 5000K is considered to be perfect but temperatures up to 5500 or so are OK. 5500K is the color temperature of the sun at noon on the equator.

The light fixture should have an electronic ballast, not magnetic, to avoid flicker problems which are invisible to humans but stressful to birds. Fluorescent light fixtures are currently manufactured with electronic ballasts because they are much more energy efficient than the old magnetic ballasts. But this changeover is fairly recent (beginning around 2002) and older fixtures might have a magnetic ballast.

Several types of light fixtures are available: fixtures that hang from the ceiling on a chain (sometimes called shop lights), standing lamps, and fixtures that clamp to the cage or sit on top of the cage. As with any electrical device, your bird should not have access to the cord. Putting the light on a timer and/or dimmer will give you easy control over the amount of artificial light your birds receive.

UVB and specialty bulbs. Once again, the subject of UVB is where it gets tricky. As mentioned earlier, the effectiveness of FS lighting in providing UVB is questionable, and some sources like the Mickaboo Companion Bird Rescue even advise against purchasing avian full spectrum bulbs because they have some UVB output

(<https://mickaboo.org/confluence/download/attachments/1179693/light.pdf?version=1&modificationDate=1292710554000>). But it is generally agreed that a UVB output of 5.0 is safe for birds, and this is the amount found in full spectrum bulbs marketed for birds.

Which bulb should be used?

This is where it gets messy. As mentioned earlier, the effectiveness of FS lighting in providing UVB is questionable, and some sources like the Mickaboo Companion Bird Rescue at <http://www.mickaboo.com/newsletter/apr10/Light.html> do not advocate providing UVB at all. But it is generally agreed that a UVB output of 5.0 is safe for birds, and this is the amount found in full spectrum bulbs marketed for birds.

Dr. Thrush states that any fluorescent light with a CRI greater than 90 will meet the need for UVA. This may have been true in the 1990s, but modern high-CRI bulbs are often shielded to prevent UV emissions. Supplemental UVA can be provided with a small black light, which emits in the near UVA but does not emit UVB. Dr. Thrush says that ordinary fluorescents are deficient at the red end of the spectrum, so full spectrum fluorescents are needed to fill this need.

But some lights that call themselves full spectrum are only talking about the human visual spectrum, which is more limited than the avian visual spectrum and does not include UV. Some bulbs that call themselves daylight, sunlight, natural light, etc will also say full spectrum somewhere on the label, but this doesn't prove that they emit UVB. If you want to provide UV lighting, your best bet is to buy a bulb that explicitly promises to deliver an appropriate level of it.

It is generally agreed that long (45 centimeters or more) fluorescent full-spectrum tubes designed to provide UVB are effective at doing their job within the useful lifespan for this part of the output. As of 1999, short tubes and compact fluorescents were not effective at providing UVB because the

short tube length didn't provide enough space for the necessary technology, and there is no subsequent information indicating that this has changed.

The major brands of full spectrum lights marketed specifically for birds are Feather Brite and ZooMed Avian Sun. The Feather Brite website states that their light has a CRI of 91 and color temperature of 5500K, as well as UVA of 4% and UVB of .05%, which is close to sunlight and appropriate for birds. As stated earlier, ZooMed does not provide information online, but other internet sources say that the Avian Sun light is 88 CRI, 7500K, no word on UVA, and 5% UVB (which is the industry's alternate way of saying .05%).

Dr Thrush advises against using reptile bulbs for birds. A reptile bulb with a UVB rating of 10.0 should definitely not be used for birds because it can burn the eyes and cause other problems.

The ZooMed company reportedly told a customer that their ReptiSun 5.0 bulb was exactly the same as their Avian Sun 5.0 bulb but this information has not been confirmed. But there is talk on the internet of reptile lights repackaged as bird lights, and if it's true it would explain why the Avian Sun apparently has a color temperature that is much higher than the 5000-5500K generally recommended for birds.

Dr. Thrush advises against aquarium lights because their color temperature of more than 6000K is good for simulating an underwater environment, but it is too blue for birds. This is also the color temperature at noon in the far northern latitudes (not our birds' natural environment!), and this is why fluorescent lights with a color temperature of 6500K are often called arctic white lights.

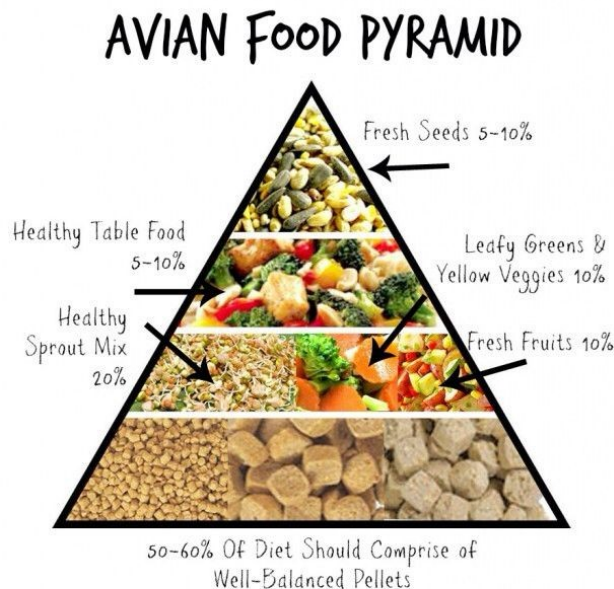
When considering the suitability of other types of bulbs (for example plant lights), consider the CRI, color temperature, and UV output. An ideal FS bulb for birds will have CRI of 95-98, color temperature of 5000-5500K, UVA of 4-5%, and UVB output not exceeding .05% (aka 5.0).

Standard incandescent bulbs have a CRI of 100 but their color temperature is less than 3000K and their UV output is minimal. Their output is quite different from that of natural sunlight at other frequencies too, skewing toward the red and yellow end of the spectrum and away from green and blue. Beware of so-called "daylight" bulbs - they are meant to simulate the general appearance of natural sunlight but they may not be true full-spectrum lights.

How much full spectrum light should be used?

Full spectrum lighting is less powerful than natural sunlight so more exposure is needed. The recommendations vary considerably (from 1 to 12 hours a day depending on the source and the reason for using the light) but 2-4 hours seems to be most commonly recommended for small birds like cockatiels. Full spectrum bulbs are designed to mimic the noontime sun, and natural sunlight would not have this intensity for the entire day.

Cockatiel's Food Pyramid



FRUITS

Mango's
Kiwi
Papaya
Melons (no rind)
Berries
Pomegranates
Grapes
Cranberries
Banana's
Apples

VEGGIES

Carrots (Tops Included)
Sweet Potatoes
Leafy Greens
Peppers, Assorted Colors
Green Beans
Sweet Peas
Sugar Snap Peas
Squash
Pumpkin
Corn

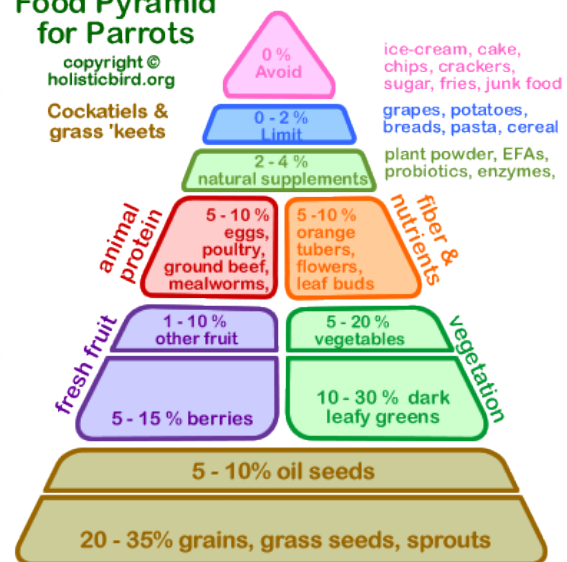


Avocado's, Uncooked Beans, Chocolate, Alcohol, Caffeine, Shellfish & Undercooked Meat. Remove Fresh Foods After 2-3 hrs.

Food Pyramid for Parrots

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holisticbird.org

Cockatiels &
grass 'keets



How to sprout

There are several different ways to sprout. Here's the technique that I use, and everyone is welcome to add their techniques too.

I sprout in a mason jar with plastic canvas mesh in the lid. Like this: although I'm actually using the smaller jelly jar size now.

Mason jars can be found in large grocery stores, sold in multi-packs. Plastic canvas can be found in the needlework department of craft stores like Michael's. The standard size seems to be #7 (the size indicates the number of holes per inch), which is fine for bigger seeds. But for small seeds like millet it's best to use a finer mesh (#10).

At night, put the seeds/grains in the jar and put the lid on. Rinse them a few times by pouring water in, swirling it around a little, and draining. Don't drain the water the last time; let the grains soak overnight. I add a little apple cider vinegar to discourage mold and bacteria.

In the morning, rinse and drain. It's recommended that you leave the jar tilted downward so it can continue draining, but I live in the desert and simply laying the jar on its side works well for me. Rinse and drain again in the middle of the day (optional) and once again at night (not optional). In the morning rinse it one last time and give it to the birds. Right before feeding you can add red palm oil, chopped veggies, or other supplemental items if you want. Total prep time: about 36 hours. Total time actually spent working on it: about three minutes.

I start a new batch every night. So I have two jars going every night: the one that was just started, and the one that was started the previous night and will be served in the morning.

I use human-quality grains from the bulk food bins at the local whole-foods grocery. Stuff like wheat, kamut, spelt, barley, rye, etc - anything that looks like a seed. Quinoa is a great addition. So is your regular birdseed. Lentils, mung beans, garbanzos, and adzuki beans are good, but other beans are best avoided unless you're willing to cook them after they've sprouted. Even the acceptable beans need to have the tails sprouted out to a length of 1/4" to 1/2" to neutralize toxins. Grains don't have this issue, and are considered to be at their nutritional peak when the root is just barely starting to stick out of the seed. For bigger birds you can include bigger items like pumpkin seeds and popcorn.

You can do the same thing with other types of equipment, like the bowl and strainer technique. The strainer (or colander, coffee filter, etc) should fit comfortably inside the bowl. Everything is the same as above, except that you put your sprouting seeds in the strainer, which is put in the water-filled bowl. When you're ready to rinse you just lift out the strainer. Several commercial sprouters are available, and the Easy Sprout seems to be the most popular.

It's possible to store sprouts in the refrigerator for a few days, although it's so easy to make a new batch that I've never attempted to store any. Other people can probably offer better advice on doing it. You can't just put them in the fridge and ignore them because it takes some vigilance to avoid problems with bacteria etc. The technique that I've seen recommended the most is to continue rinsing them daily, drain them well, then store them in the refrigerator in a covered container with a paper towel in the bottom.

Some vigilance is needed after the sprouts have been served too. Like any moist food, they provide a nice environment for mold and bacteria. So you have to make sure to take them out of the cage before they go bad. The amount of time that they stay good will vary depending on the humidity and temperature in your house. It could be anywhere from a couple of hours to all day long, and the safe period will fluctuate from day to day and season to season.

Sprouts will spoil eventually and several factors affect how long they stay safe. Warmer temperatures promote the growth of bacteria and mold more than cooler temperatures do. More humidity favors the growth of the bad stuff more than less humidity does. The pH and general quality of your water may have an influence. So you just have to be alert at first and do a sniff test several times a day to figure out how long you can leave them in the cage. This may vary with the season and weather factors.

The sprouts will keep on growing in the bowl for a while. But they will stop growing when they dry out.

Supplemental Heat

Below is an article I've been working on. Hopefully several people can add to it, and possibly post some pictures showing some of their hospital cage set-ups. Hopefully the moderators can add this to the sticky pages for future reference.

When a cockatiel looks or acts off our first instinct is to provide it heat. The main goal of this is to help the bird to regulate it's body temps until we can either determine the problem or see a vet. Regulation of body temperature depends on several things, which you can use the listing below as a checklist.

The normal body temperature of a cockatiel is between 104-105 degrees (40-40.5 C) The easiest way to get the body temp is if you have a digital thermometer. It can be held under the wing with the tip placed into the wing pit, and the wing held down in place til the thermometer reads the temp. If the body temp is below 104 degrees (40C) then supplemental heat is needed. This same reading can be done on other species of birds to record their body temperatures when healthy, which would be a good reference for future use. I would like to note that if it is a handfed baby, it is always best to feed the chick formula that is it's normal body temp. This helps the body to conserve energy, rather than use it to warm up the food for digestion.

Heat is lost from the body by 3 ways:

Radiation

Which is from the surface of the birds body, such as any exposed skin. If heat is lost this way, adding humidity will help reduce the loss of heat through evaporation from the skin. Any exposed skin is porous and will absorb humidity to help maintain hydration. Humidity can be added by having a jar filled with warm water (with a top that is punctured with holes) placed in the corner of the container/cage. Or, if a heating pad is under the container/cage some of the bedding can be wet in a corner to get warm and evaporate to bring humidity levels up. If the cage/container is covered the covering can also be very lightly misted on the inside to increase humidity levels. NOTE: If using a heating pad under the bird make sure that you have 1" or more distance from the floor of the cage so that the bird does not suffer from hyperthermia.

Convection

Which is the air surrounding the bird should be equal to or just slightly under the birds normal body temps. I have found that (do a Google search) that T-Rex Cobra Heat Mats work very well as a source for convection air surrounding the bird in a hospital or supportive care environment. I have a little info on my Mousebird site, and have to soon update with pictures: Emergency heat If it is a baby from the nest or a small bird a glove can be filled with warm water and used for a quick source of heat until a container can be setup: heat source used for small chicks.

Other alternative sources of heat can be provided from a hot water bottle wrapped in a towel.

Birds that suffer from foot problems or fractures should be in a wire enclosure to encourage them to use their beak on the wire for balance and the feet for something to grip. If perches are used they should be placed close to the floor to minimize on further injury. Avoid any contact to a heated surface.

If a bird has to be treated with a medication, it is best to have the hospital cage/container big enough so that you do not have to remove the bird. Ambient temps for adult birds should be 85 degrees (29.44C) with humidity at approx 60-70 %. Unfeathered chicks under 10 days old should have an ambient temp. of 94 degrees (35 C), and older babies at 90 degrees (32.22C) Clinical signs of hyperthermia (over-heating) are panting and holding the wings away from the body.

Conduction

Which is metal or wood surface which is colder than the bird, and these cooler surfaces will draw heat away from the bird, which is stressful and the bird has to use body reserves to generate heat to compensate. If the bird is able to perch at heated perch may be beneficial.

Below are several things to consider or address when a bird is placed in a heated environment or hospital cage.

Feather condition (Fluffed-up, molting, plucked)

Many times the condition of the feathers can be a clue to a problem. Such as stress due to changes or illnesses can result in stress bars on new feathers growing in during a molt. When a bird does not feel well it will find a corner or a perch and try to limit its movement to conserve on energy and body heat. When conserving body heat the body plumage will appear fluffed. If a bird is suffering from a zinc (heavy metal) toxicity many times there is a subtle change of plumage and the feathers will appear slightly darker and have a satin sheen to them. If a liver problem, as it advances the white barring will get a yellow wash to it. If a bird is plucked, and has problems it is harder to maintain body temperatures due to evaporation through the exposed skin. Determining the cause of plucking needs to be resolved. Several common causes with cockatiels would be food allergies (corn), giardia, zinc toxicity, stress, boredom, environmental contaminants, intestinal parasites (plucking around the vent), and renal/kidney problems (plucking on the rump above the tail, and necrotic long down feathers on flanks)...to name a few.

Fat and muscle content, (overweight, or losing weight)

When a bird is unwell and not active it needs to be monitored as to if it is maintaining weight or losing weight. Having a grams scales that weighs in increments of 1 gram is very helpful to monitor weight. It is best to keep some records on each bird to have a record of what their normal weight is. This way you have a base number to determine weight loss or gain. What you want to see is, if the bird appears unwell, is it maintaining the weight or losing weight.

When weight is lost what is happening is the birds body is drawing from the fat stores and muscles. The fat stores contain all the fat soluble nutrients such as vitamin A, C, D, and E, and many of these nutrients are helpful to maintain or boost the immune system in times of need. When the fat reserves are used up the body then starts to draw from the protein sources of the body which are

from the muscles. When this occurs weight gain can be rapid. A bird that has good weight can become emaciated within hours or a day. Weight loss is rapid and can be a gram or 2 per hour when the body starts to draw from the muscle, in addition to loss of body fluids.

Excessive weight gain can also be a concern when a bird appears unthrifty. Many times when there is a problem with liver function or reproductive problems such as peritonitis the body will retain fluids (which is called ascites) which will accumulate in the abdominal cavity. This fluid can either be sterile, or septic (contain bacteria) and needs to be analyzed and treated if necessary.

When a bird is losing weight and its feet feel cool, and it is having a hard time maintaining body heat it is safe to 'suspect' that there may be a bacterial infection as the cause. If it is a hen, and has been setup for breeding, and showing signs of possibly being egg-bound, and no egg is felt then possible peritonitis can be suspect. But regardless of the problem, heat is beneficial until the bird can be seen by a vet. Heat helps the bird from further stress. Stress can trigger secondary bacterial or yeast problems and further compound existing issues.

Hydration status

Dehydration lowers blood and body fluid volumes and drops the core body temps. Birds that suffer from shock or trauma will also benefit from hydration. The normal distribution of fluids and water in the body are as follows. Total body water in an adult bird accounts for approximately 60% the body weight, and the percentage is even higher in young birds. Extracellular water constitutes approximately 18 to 24% of the body weight, depending on the method used to determine its volume from the bird's age, sex, and lean body weight. Blood volume (cells and plasma) constitutes approximately 4.4 to 8.3% of body fluid volume in thickness. In other avian species percentages can be as high as 14.3%.

When a bird is losing weight part of this can be a result of losses with fluid volumes in the body, in addition to tissue loss. Loss of fluids from the body include, urine, feces, respiration, not drinking. Sources of water for the body are by ingestion, water in foods, water produced through the metabolic process in the body, and from absorption through the skin from humidity.

A physical examination can be done to determine if a bird is dehydrated. You can look for an area of the skin that is unfeathered (usually under the wing near the flank) and pull on the skin between your fingers. If the bird is hydrated the elasticity of the skin will pull the skin back flush to the body. If the bird is dehydrated the skin will remain tented from the body for a few seconds. The skin may also look very dry, have a wrinkled look, and the flesh under the skin a reddened look. The eyes will appear dull, flat or sunken into the head. The feet and beak will feel cool. The heart rate will be increased. And the toes will have a thin stick-like look to them.

There are several degrees of dehydration that can be determined from physically looking at the bird.

- Under 5% is very difficult to detect.
- 5 to 6% shows a very subtle loss in skin elasticity.
- 7 to 10% will show a definite loss of skin elasticity, prolonged filling time of the basilic artery and veins, dry mucous membranes, loss of brightness and roundness of the eyes, with a sunken appearance.

- 10 to 12% Tented skin stands in place, possible signs of shock, muddy color to the scales of the feet, and thinness of the toes, dry mucous membranes, cool extremities, increased heart rate, poor pulse quality.
- Extreme depression, signs of shock, death imminent if hydration is not corrected.

When dehydrated the bird is in need of fluids. In order for digestion and the organs to work efficiently they must have good hydration. Digestion and organs can get severely impaired or fail if hydration is not corrected.

If the bird will eat and drink this is one source of fluids. Below is a recipe for a homemade electrolyte solution that can be used for the water or be carefully fed orally. Other ways of getting fluids into the body can be done by gavage or tube/crop feeding about 1/2ml at a time. Or in extreme cases fluids can be administered Sub-Q (subcutaneously) under the skin. A vet can calculate how much fluid would be needed by the stage of dehydration and body weight. The vet can also show a client how to administer the fluids, amounts and frequencies needed. Note: The fluids should be warmed to body temperature.

Home Made Lactated Ringers

(Electrolyte solution for re-hydration)

Mix the following in a jar:

8 oz. (236.58 ml) of warm water

½ Tablespoon of sugar

⅛ Teaspoon of salt

⅛ Teaspoon of baking soda

Stir well, and refrigerate. This solution is good for 2-3 days when mixed. Initially the solution can be mixed 50/50 with water till the bird gets used to the taste.

Food intake

When a bird is sick it is important to determine if it is eating or not. As good guide, is if it is eating it should be pooping. Foods like spray millet are good for convalescing birds because it is easily digestible, and a good source of energy. If the bird is interested in eating, food and water should be placed close to the bird. If not eating, seeds, pellets, and veggies can be spread on the floor of the cage around the bird to encourage picking and eating. NEVER attempt to do a diet change when a bird is debilitated.

If a bird is losing weight, it is wise for a person to know how to tube/crop or gavage feed if the bird is not eating on its own. Tube/crop or gavage feeding should be skills all person should learn how are safely done so that in times of need you would know how to do this. The tools needed for doing this would be a good addition into a birdie first aid kit. Many times when there is extreme weight loss the bird will need an easily absorbed source of protein and amino acids. I have found that dissolving several grains of bee pollen in ½ to 1ml water, and adding to a hand feeding formula to feed is very helpful. Adding a little probiotics or yogurt will also aid in good intestinal flora. If the bird is weaned or an adult the crop skin will be small and tight, so the capacity for food is small. The max that should be fed to is 2-3ml at a feeding at a temperature of 104 (40C) degrees.

If a bird is very lethargic, it can be due to being hypoglycemic, and a drop of Karo Syrup or Honey can be added to 1ml of water, and orally fed. Or several drops of each can be added to the drinking water. If the bird is a female and a calcium deficiency (such as egg-binding) is suspected a drop of oral calcium (neocalglucan, which can be from a pharmacist), or a TUMS tablet can be crushed, and ¼ tablet mixed with 1ml of water, and a couple drops orally fed will help get calcium into the body.

Respiration (normal or labored breathing)

When a bird has labored, open mouthed breathing this can be a source of moisture loss as it expels air. An environment that contains heat and humidity is very beneficial to respiratory problems

Some primary respiratory diseases include: labored breathing can be from shock or trauma, a systemic bacterial, fungal, chlamydial, toxins, ingested foreign objects, parasitic infections, fluid accumulation (ascites) in the body cavity that put pressure on organs and the air sac along the side of the body, mycoplasmal, or neoplasia. Extrarespiratory diseases include: thyroid, hepatic, renal, gonadal, oral masses, coelomic fluid, cardiovascular disease, and neoplasia.

When a bird has a bacterial infection this can lower body temps. Low body or blood volumes also contribute to a lower body temperature.

A vet visit would be in order and diagnosis can be determined by, a CBC, chemistry panel, radiography, and abdominocentesis (drawing of fluid from body, if present) Therapy is based on the diagnosis and may include oxygen therapy, antibiotics, anti fungal, vitamins, nutritional support, and fluids. During treatments, until the bird is stabilized keep in a heated environment

Breeding and Genetics

The making of an egg

I find myself totally intrigued by the whole process of breeding, especially how these little bodies can produce something so complex that it has the potential to become another little bird. Although the process of the embryo in the egg is amazing, the work it takes to even become an egg is just as amazing.

The whole thing begins once a hen is stimulated to lay eggs. Even if there is no male present, or no successful mating occurred, a hen can still lay eggs. Of course, you'd need a fertile egg for it to become a chick so let's suppose you have a hen that has properly mated with her mate. That process is called copulation. A part of the male's sperm is then stored in a special compartment for up to 15 days. A female can also store several males' sperm during this time. This allows her to be able to lay a whole clutch off just one mating, although it may happen more often than just once.

Once ovulation (the process of her body making the egg) begins and the yolk her body has made then meets the sperm. Even if there is no sperm present, the yolk then travels down a long tube in her reproductive system where it is then covered with a membrane, fibers and then the albumin (egg white). During this time the egg continues to be rotated until it is covered with the final membrane that holds it all together.

Right before the egg is laid, the shell made of calcium carbonate in a crystallized form and deposited around the bare egg. This process from fertilization to the egg traveling down and being

built happens in less than 48 hours in a normal case. With cockatiels, the egg is usually passed every 48-52 hours. The process then starts all over again within hours until the clutch is completed.

With everything, complications can occur in some cases although most can be avoided with proper care. With all of these conditions it's very important not to wait it out and just take her straight to an emergency vet. The longer the wait, the more damage can occur and death is very likely in most of these.

Prolapse

Prolapse of the oviduct (canal that passed the egg) can occur as a result of egg binding. Excessive contraction of the abdominal muscles, poor physical condition, and poor nutrition may cause these prolapses. Usually the uterus protrudes through the cloaca (vent). It is important to keep these tissues moist. A small amount of Neosporin or triple antibiotic ointment can be placed on the protruding tissue and then you must proceed to the veterinarian. This problem will not resolve itself without medical help.

Infection: Salpingitis/Metritis

These are basically internal infections that can be caused by any of the complications listed or simply poor hygienic on the caretaker's part. Usually depression, weight loss, anorexia, and abdominal enlargement and discharge from the cloaca may occur.

Oviduct Impaction

This is a condition in which soft-shelled eggs, malformed eggs, or fully formed eggs are stuck in the lower oviduct. It is usually a result of infection but can also result from egg binding. Usually the hen will stop egg production and slowly lose condition. There will be periods of alternating constipation and diarrhea. Periodic anorexia, reluctance to fly or walk, and abdominal enlargement (usually left side) are all signs.

Cloacal Problems

This is basically what it reads: problems with the vent. Chronic inflammation caused by infection or prolapses will interfere with the process and it can usually be seen from the exterior.

Peritonitis

This condition This frequently occurs in cockatiels and has two parts. It can either be septic or non-septic meaning it can either include bacteria or exclude it. This condition occurs when egg material is free floating in the abdomen. This usually occurs when the body does not have the yolk travel down to become an egg. Septic peritonitis will have more complications and the result is often death. Non-septic can be more treatable by removing the material but it's a long term process.

*With that said, you can see that the making of an egg is a lot more complicated than it looks. A good diet and proper care can eliminate most of these problems but most importantly loving your tiel enough to rush them to the vet if ever needed is the next best thing. They depend on you since they can't drive themselves there. Always monitor her behavior so you know what's normal and what's not, especially during egg laying. Be watchful of these signs:

- Abdominal straining
- Bobbing or wagging of the tail
- Drooping of the wings
- Wide stance (sitting with legs far apart)
- Depression
- Loss of appetite
- Lameness or leg paralysis (the egg puts pressure on the nerves going to the legs)
- Distended abdomen
- Droppings stuck to the vent area (the bird cannot raise her tail when passing waste)
- Fluffed feathers
- Weakness
- Labored breathing (the retained egg puts pressure on the air sacs)
- Sitting on the floor of the cage
- Possible prolapse of part of the reproductive tract (the inner part of the reproductive tract is pushed out so that it is visible as a pink mass protruding from the cloacal opening)

I hope nobody ever has to go through any of the complications above and can simply enjoy the miracle of an egg and possible hatchlings but that's not always the case. Having a basic understanding of how things work and what can happen can save a life. After learning about this process I have to say I'm a lot more appreciative of what their body goes through for this little egg to come into the world.

From Egg To Weaning – Pictures

Here is a collage of my little Snickers from egg to weaning age. I thought it would be a good guide for people who are new to breeding and are wanting some comparison. Though you should keep in mind that my Snickers had a slow start.



Mutations Guide

Normal Gray

The most common color for Cockatiels is the Gray. It is the color for all wild cockatiels. It is the basis for all the mutations that have come about through captive breeding. The wild type cockatiel is made up of Gray (melanin) as well as yellow and orange (lipochrome). The immature birds will share the markings of mature hens until the first or second molt when males develop a yellow mask and solid gray wing and tail feathers.

Immature gray



Tail barring and wingspots

shared by immature birds and mature hens



Mature Female

females will have a gray suffusion on the face



Mature Male

Males will have a bright yellow mask and notice the solid gray under the tail.



Cinnamon

The Cinnamon has the same markings as the Wild Type Gray except that its melanin is lighter which results in tan or brown replacing the gray. The hen will have the same suffusion of the body color through the face

Immature Cinnamon



this one is a older than the first but still has not developed the yellow mask of the mature male

Female Cinnamon



Mature Male Cinnamon



Lutino

The Lutino Mutation lacks the melanin that makes a bird gray or tan. The result is a yellow bird that is usually paler on its body than on its head. It's difficult to visually sex the Lutino. The tail barring and wingspots are still present and can be seen under strong light but they are white against pale yellow. They have the orange cheek patches of the other types and most commonly have red eyes except in rare cases where blue eyes have been seen.

Immature Lutino









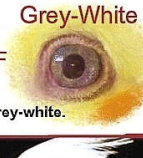

Lutino Female



Lutino Male



Lutino eyes coloration

Copyright 2012 Susanne Russo		Lutino Eyes		Altered Lutino eyes due to other genes	
 Young	When young the lutino eyes will look red. As the bird matures the eyes will darken. This is a result of some melanin pigment which acts to block the veins of the eye from showing through. When young there is no melanin pigment to block reflective light from the pupil of the eye.	 Green	Cinnamon Lutino or Lutino Pearl split to pied and/or WF At maturity may change to amber or greenish yellow	 Amber	
 Mature		OK...on the right shows that melanin will darken the eyes as the lutino matures. I have found that split to pied or pied and whiteface can also alter the eye color. Pied tends to suppress melanin pigments from darkening the 'iris' portion of the eye, and in doing so underlying colors are visible.			
 Lutino Pied	A lutino pied eye will always remain a pale pink/red color throughout life.	 Blue	Lutino split to Pied and/or WF At maturity may change to pale blue or grey-white.	 Grey-White	
		Whiteface Lutino		 Blue-White	
		If just split to pied the eyes will change to a pale blue-white. NOTE: If the bird is a Whiteface Lutino Pied the eyes will remain a pale pink/red.			

White Face Gray

The White face like the Lutino only lacks one of the elements that makes up a wild type but in this case he lacks the lipochrome. the result is a bird with no yellow or orange. The same rules for markings still apply with the immature birds and females sharing the tail barring and wing spots. The White face male will develop a striking white face rather than the yellow mask of the wild type.

Immature White Face



young male before acquiring his white mask

White Face Female



Mature White Face Male



Pattern Varieties

Pied

While other mutations follow predictable pattern and common rules for their markings this mutation follows none of the rules. It is a non specific lack of melanin that can occur anywhere on it's body. It can be as varied as just a few light (pied) feathers. This is called a Light Pied. A normal Pied bird is ideally about 50% pied. The heavily Pied bird would have more than 50% light colored feathers. In the case of the clear pied fewer than 2% of it's normal coloring still exists. They are very difficult to sex visually as the markings that enable you to separate the boys from the girls are in most cases disrupted. Although there are a few that retain some of the wing spots and tail barring

Light Pied

just showing pied feathers on his head



Normal Pied

These two have a good 50/50 mix





Heavy Pied

Just a few dark feathers remain



Clear Pied

Almost no dark feathers remain



Pearl

The Pearl is a mutation with a specific lack of melanin. This creates a feather pattern that has little variation in this group. The male when maturing will lose their pearling with few exceptions and look like a wild type Gray.

Close up of Pearls

pattern of Gray Pearl



Immature Cinnamon Pearl

pearl can be combined with any other mutation



Same young male losing it's pearling



Mature Pearl Female



Mature Pearl Male



Facial Variations

There are a few options also with face colors. They have a delicate and interesting appearance. I have a couple of them shown here.

Pastel

Pastel Face Pied male



Pastel Face Gray female



Yellow Cheek



Uncommon Mutations

There are a wide variety of mutations being developed all the time. I am showing only a few of the less common varieties here. There is the Emerald which seems to have a greenish cast to it's feathers. The Silver is much like the wild type Gray but is much lighter. The Fallow is much like Cinnamon but with a very pale tan and red eyes.

Normal Fallow

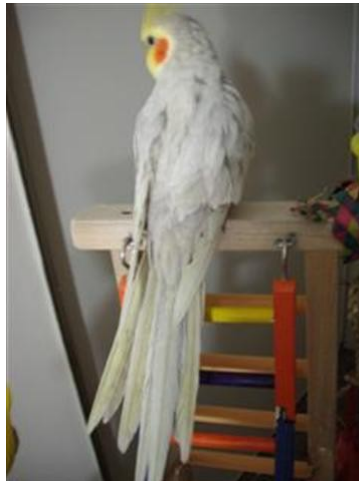


White face Fallow Male

Clearly showing the red eyes



Emerald



Silver



Combination Mutations

There are almost endless possibilities when you start combining the mutations. Some of the results are surprising. Here again are just a few.

Lutino Pearl

Darker yellow pearling against a pale yellow body



White Face Pearl Pied



White Face Combinations

Cinnamon Whiteface, Cinnamon Whiteface Pearl and Cinnamon Whiteface Pied



Lutino Whiteface

Combining genes from a bird with no gray with a bird with no yellow or orange can produce an all white bird



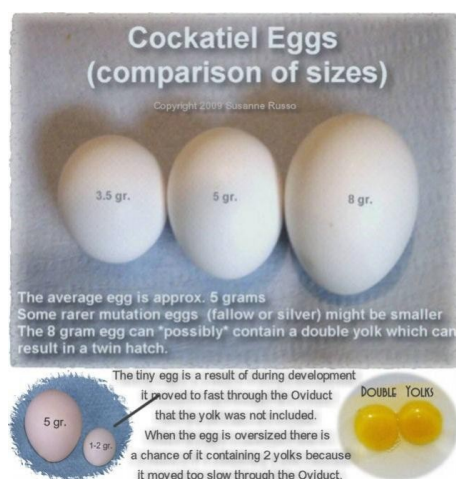
A Variety

As you can see there are a wide variety of colors and patterns that can make every bird unique



Twin Hatches

Cockatiel eggs are various sizes and weights. Sometimes mutations have something to do with size, or it is inherited, how long it takes to travel through the oviduct. Shapes vary from totally round to very oblong. The average egg weight is 5-6 grams. The 1st. Illustration shows several egg sizes with weights with notes as to the abnormal appearing eggs.



I am going to focus on the larger egg, which in many cases can contribute to a double yolk and a twin hatch.

I learned many years ago that even writing down and counting the eggs in the nest can result in more chicks than expected. This happened a couple of times before I realized what was going on. There would be 4 eggs, yet when I checked a few days later after hatches there would be 5 babies. What?...When did I move an egg or baby around? Did I count wrong? There are no eggs or babies missing in other boxes. What is going on? When I first started breeding I made up nest box cards to write down info in regards to when an egg was laid, hatched, fostered, etc. as a means of keeping track of things.

Then I started to really look at the variances in egg size. I noticed mutations like my recessive silvers and fallows had smaller, rounder eggs. Some hens consistently had oblong eggs, many first timers would have a tiny egg, and some of my pied lines I was breeding for splits to other mutations were laying very large eggs. Out of curiosity I started to weigh the eggs. Since I had learned that certain times of the years I was having a lot of DIS (dead in shell eggs) I started candling eggs, and used candling as a guide on development and monitoring close to hatch. In doing this the mystery was solved as to the extra babies. In candling it appeared that there was more yolk than there should have been in the larger eggs. I broke open a couple that were infertile and noticed that there were 2 yolks. On other large eggs the yolk was oversized compared to a normal yolk from a normal sized egg. I also made it a common practice to also break open any egg that was DIS or did not hatch to use as a learning tool on why they did not hatch. In doing so I discovered that in the larger eggs that had the oversized yolk there were two dead chicks, sharing the same yolk. And the double yolked eggs had 2 chicks that developed independent with each other because they were not sharing yolk and blood supply which greatly increased their chances of successfully hatching.

This picture shows a DIS twin hatch with a shared yolk.

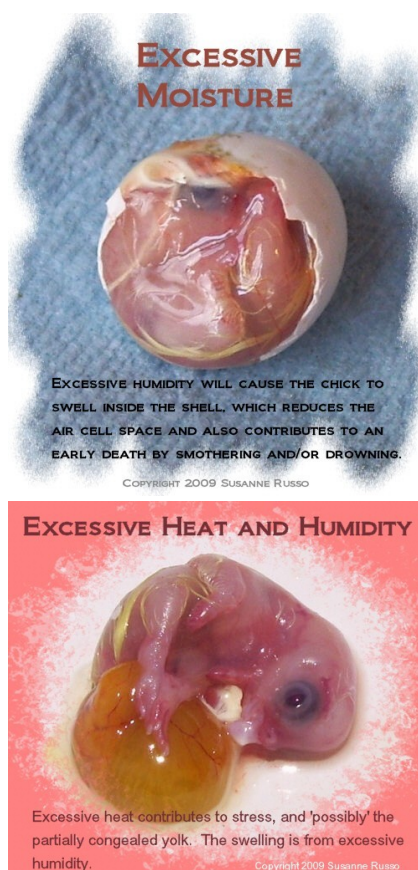


The picture bellow shows two piers from a successful twin hatch. The mother of these babies was an older sister of the hen that had the DIS twin egg.



I have the daughter, Thomasina, of the pied hen that has had both live and DIS twin eggs. She has been breeding for several years and has always had normal appearing eggs, good hatch rate and her and her mate, #4 (ran out of names) excellent parents. Thomasina and #4 have had one clutch this year, and are weaning out a baby and had started their second clutch. We have been having a lot of erratic weather that can affect hatches. Extreme changes in temperatures can disorient the pipping eggs, and many times have an erratic pip and hatch out the side of the egg. We have went from a very dry winter and spring to our rainy season and excessive humidity. The excessive humidity is problematic because in addition to the parents wetting the egg, the egg is porous and can draw in additional moisture from the air. When this happens the air cell starts to reduce in size. When this happens there is a great risk of the chick swelling from the excess moisture and smothering or drowning from the excess fluid in the egg. This time around Thomasina had very large eggs. I had also fostered a couple of eggs I had in the incubator under the pair that were approx. the same stage of development. While candling the eggs I noticed the air cell size was getting smaller with Thomasina's eggs. I thought: 'Oh crap, humidity' Then I noticed that they had tried to open the egg. I pulled the egg and put in an incubator.

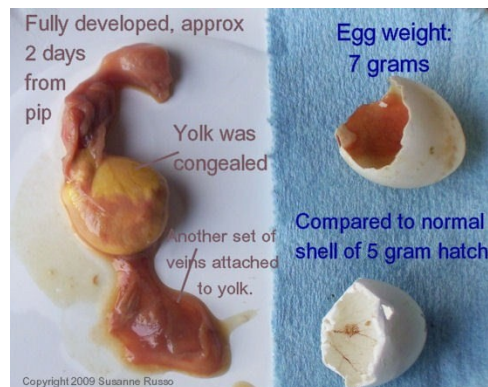
From the bit of chick that was exposed it looked very swollen, and wound up dying, so I took it out of the egg (picture 4 &5) and noticed the yolk was partially congealed. I had never seen that before and the only thing I could think of is excessive heat because it has been getting almost 100 degrees during the day, in addition to 100% humidity.



The pairs are setup in a shaded screened in porch, but the air temp is hot. I have eggs actually hatch on their own without being incubated because of the heat. The pairs would just go in to turn the eggs. I try to have my breeding season done before summer, but it has been warmer than usual this year, and we have had no winter to speak of.

Back to Thomasina and #4. In candling some more of her eggs that I was monitoring the air cells they appeared to have become DIS.

I opened up the one in the 6th picture and was puzzled by the contents. I couldn't get a close enough shot to bring out detail but it appears that cause of death may have been by an early death of an additional embryo. Hm...then I started to go back in her records and noticed that Thomasina was the daughter of a hen that produced double yolked and twin eggs, like the ones in the 2nd picture.



Years ago when I first realized that I was having some occasional twin hatches I confided in my vet and showed pictures when he came over for a flock visit and evaluation. He had insisted that the chicks would be identical, and I showed him pictures and some live hatches and none were ever identical, only fraternal twins. Most times it was 2 different mutations in the same egg. For instance, in picture 2 there was a fallow baby and a dark eyed yellow down baby. The mother of that picture was also a twin hatch...she was a normal pied, and her twin was a cinnamon pearl pied. The last live twin hatch I had contained (once feathered) a normal gray and a WF emerald. I have also learned that the only way there can be a live hatch is if there are 2 yolks. When there is 1 yolk the embryos are sharing the yolk. As they develop they are on either side of the yolk, and as they get close to piping, if not in sequence and positioned right one will weaken and die, which can cause the death of the other chick. Assist hatching is very risky because it is hard to tell where the babies are exactly, and which one to actively assist. With a double yolk the babies have a little more freedom in movement independent from each other as they get close to hatching and start to pip. Many times their pip marks are on opposite sides of the circumference of the eggs, and they pip in tandem to get out.

Sorry for the long posting. Has anyone else ever had suspected twin hatches or some strange eggs and hatches?

I think it may be more common than many realize because the majority of either double yolk eggs with viable embryos or shared yolk end up as DIS, especially if the egg weight is under 8 grams.

About 10 years ago there was a lady on another message board that had a live twin hatch that resulted with the tips of one wing joined to the twin. The vet successfully separated them.

With alot of the larger birds I have heard of successful live twin hatches over the years.

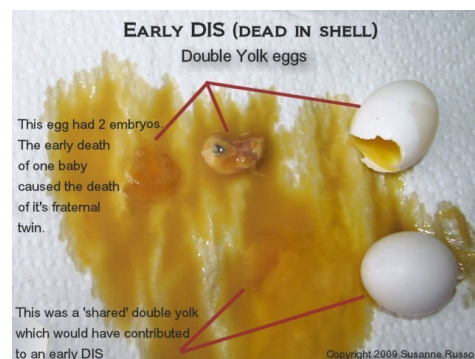
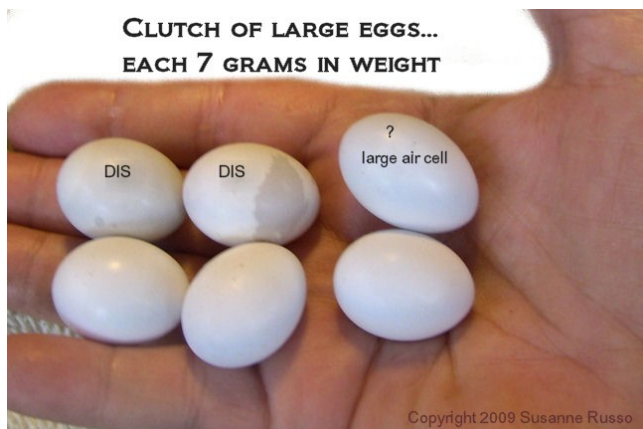
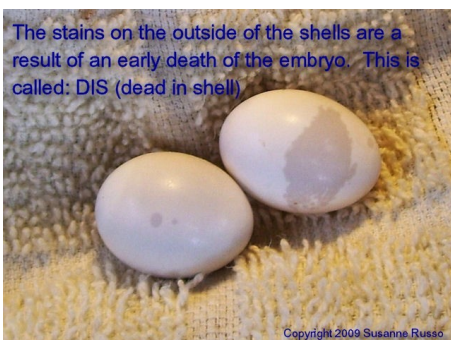
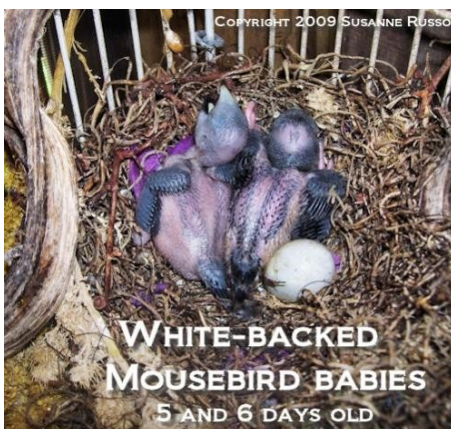
I have to go thru old pictures but I may have pictures of when I was candling the egg. I was on a cockatiel list at the time of the DIS twin hatch collage was done. The red eyed baby was twerping loudly in the egg to get out and it was one of the few times that I did not attempt to assist hatch. I

learned later that I should have and could have saved at least 1 baby, even though they had shared yolks, by tying off the yolk close to the body of the live one and removing it. (picture)



Over the past week or so I have been moving weaned babies to the large outside flights, and trying to get all the mousbirds into a large community flight. I couldn't move all the mousers because one pair had a nest in the upper corner of the flight.

I took down all the boxes on the cockatiel colony flight, except 2...1 box has babies and the other box had a first time hen (WF pearl) that layed in it. I decided to check the eggs to see if fertile and what was going on with them. All were large eggs (pix's below with info) and a couple were DIS. I broke the DIS ones open to learn they were double yolked , and what went wrong. Of the group 3 are good, one is a ?. I couldn't find my good flashlight to candle the eggs better to see aside from fertility what is going on inside. If/when they hatch I'll be counting babies...



Crossovers

Genetic crossovers are hard to understand, so here's an illustrated attempt to explain it. The only crossovers that make any difference for color mutations are when the male has multiple sex-linked genes.

What is a crossover? Well, chromosomes normally travel in pairs. When sperm and ova are formed these pairs break apart, so that each parent gives the chick one chromosome from each pair. But it's called recombinant DNA for a reason. Before the chromosome pairs break apart some of the genes are shuffled from one chromosome to the other, and each reshuffling may be different so there's a wide range of possible combinations. A segment of one chromosome will trade places with the matching segment on the other. Because this exchange happens in segments, genes that are close together on the segment tend to not get separated and genes that are farther apart are frequently separated.

Lutino and cinnamon are apparently close together so crossovers between them are relatively rare (estimated rate = 3%). Suppose we have a male with lutino on one X and cinnamon on the other. I'm making up the locations, but suppose that both genes are carried on the top right arm of the X. The colored segments show the location of each gene on the father's chromosomes:

Now suppose that there's a crossover between these entire segments. This is what you get:

Now the cinnamon gene is on X1 and lutino is on X2, but for practical purposes there is no difference. We still have one X with lutino on it and one with cinnamon on it.

Now let's get a little more precise about the location of those genes. Here's where they are on the father's chromosomes:

This time only a little segment from that part of the X trades places. Here are the results:

Now we have a difference! Instead of one X with lutino and one with cinnamon, we have one X with lutino cinnamon and one with no sex-linked mutations. Each of these X's is going to go into a sperm, and if one of them fertilizes an ovum then the breeder will have some unexpected results in the nestbox.

But the most common crossover involves pearl and lutino and/or cinnamon, because pearl is further away from the other genes and recombinations are more common (estimated rate = 30%). Now our father bird has lutino pearl on one X and cinnamon on the other:

In our first example, nothing important happened when the whole upper-right segment of the X traded places. But look what we get when that same segment moves now:

Instead of lutino pearl on one X and cinnamon on the other, we now have cinnamon pearl on one X and lutino on the other. There are surprises in the nestbox once again.

Timeline of when Cockatiel Mutations appeared...

It all started with a normal (wild type) cockatiel. In the US we currently have 14 known mutations, excluding the normal grey, which is not a mutation. Of these mutations, only six were developed and breed initially in the US.

Originally cockatiels were identified in the late 1700's in Australia, their native country. From there they made their way as captive birds in Europe in the early 1800's. The first mutation from the normal grey was the pied in 1949.

The first captive breeding of cockatiels was in France in the 1850's. From there cockatiels spread worldwide. It took about 100 years for the first mutation to evolve, which was the pied. A mutation is defined as a spontaneous change in the genetic code. These changes have resulted in the different colors we now have today. All cockatiels, excluding the normal grey are mutations.

Mutation	Place	Year
Pied	USA, California	1949
Lutino	USA, Miami FL	1958
Pearl	West Germany	1967
Cinnamon	Belgium	1967
Recessive Silver	New Zealand and Europe	1950 and 1960 respectively
Fallow	USA, Florida	1971
Whiteface	Holland	1969
Dominant Silver	UK	1979
Pastelface	UK	1980's
Sex-linked Yellow Cheek	Europe	1980's
Dominant Yellow Cheek	USA, Florida	1990's
Goldcheek	USA, Virginia	1990's
Emerald, Olive	USA, Texas	1990's
Creamface	South Africa	2000's

Mutations Found in Australia

Australia is the origin of cockatiels worldwide. It is the home of the Normal Grey cockatiel. There are 14 mutations found in Australia. Of these mutations 6 (six) were imported into the country, and 8 (eight) are established and exclusive to Australia.

Imported, non native mutations:

Mutation	Year
Pied	1970's
Lutino	1970's
Pearl	1970's
Whiteface	1980's
Cinnamon	1990's
Pastelface	1990's

Mutations Exclusive to Australia

Mutation	Year
Australian Fallow	1960's
Faded(West Coast Silver)	1982
Cinnamon	1980's
Edged Dilute(Silver Spangle)	1980's
Platinum	1980's
Dilute(Pastel Silver, East Coast Silver)	1980's, to the public 1990's
Suffused(Olive)	1990's
Pewter	1998
Australian Yellowface	2001

How to be prepared for hand raising babies

Here are the items you will need in case the parents do not take care of their babies and you'll have to hand feed them and raise them.

1. You take a towel and lay it down on a flat surface - Such as a table
2. You lay the heating Pad on top of the towel
3. You lay another towel over top of the heating pad
4. You get a thermometer to Put in with the babies to make sure they are kept at the proper temperature for their age

Then you put the cage on top of the Heating pad that you set up a moment ago and Cover it partially with a towel to help keep the heat in and also helps the babies from being scared, you can use clips to keep the towel attached.

Then you cover the rest of the cage with another towel for when your not feeding or the babies are sleeping

Now on to what you will need to correctly hand feed the babies

Hand Feeding formula, Syring, Measure spoons, a bowl to mix the formula in , a thermometer to make sure the formula is not too hot or too cold, Paper towels to wipe them up , and a scale to keep a daily check on their weight to make sure they're gaining the proper weight

Also Make sure one syringe per chick to avoid other chicks getting sick in case one of the others have something wrong that you don't know about

Please, take care with heating pads. A baby can get crop burn from them. Especially if they lie down, with a full crop and are in one area too long. I have had that happen. With crop burn you don't know it has happened until several days later. Any heating pad should have plenty of bedding or padding, a couple of inches, between it and the babies. In RARE instances a baby can get a tiny piece of Carefresh in it's mouth, and it can block the airway and die in seconds.

When you pull the babies you might want to keep track of your handfeeding progress.
Here is a chart to use when handfeeding...

Hand-Feeding Chart

Species:

Chick ID:

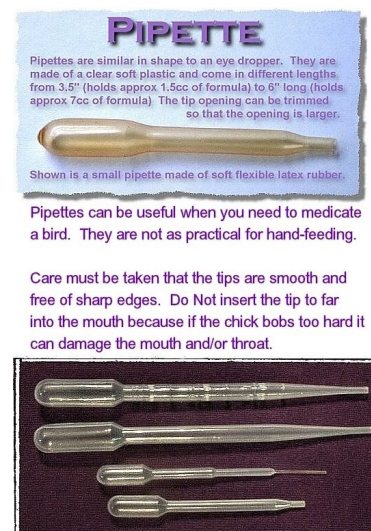
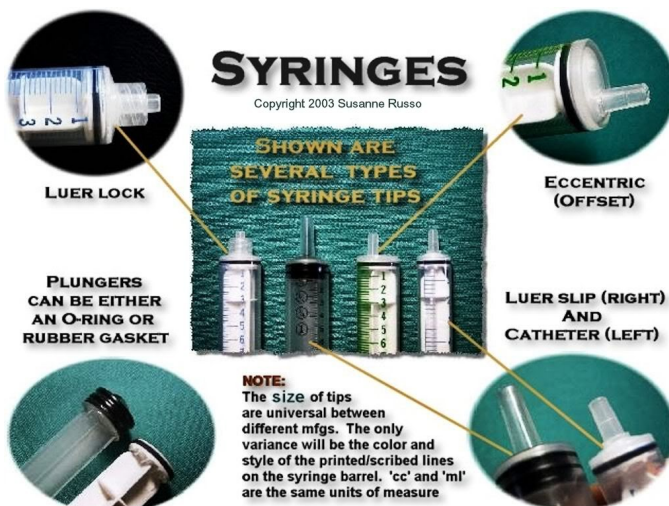
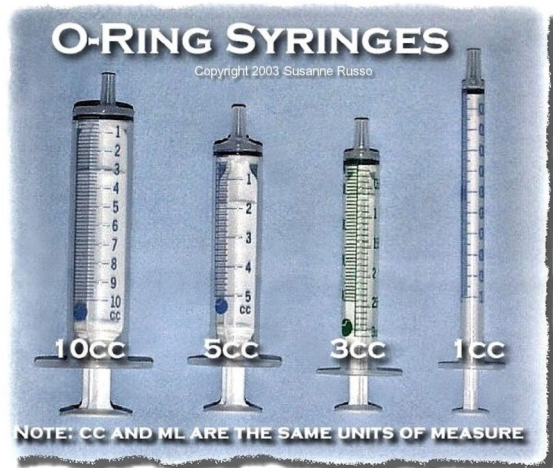
Hatch Date:

Father ID/Mutation:

Mother ID/Mutation:

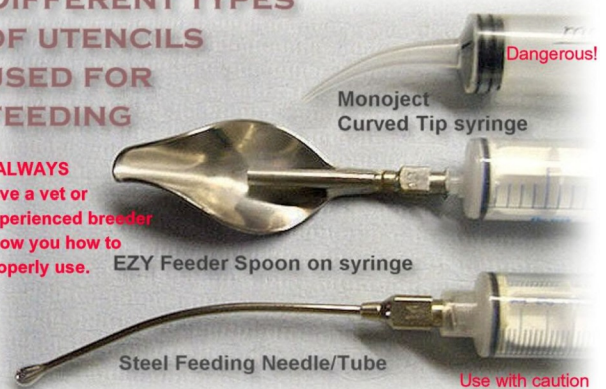
[illegible]

Here are some pictures that can help you hand-feeding...



DIFFERENT TYPES OF UTENCILS USED FOR FEEDING

ALWAYS have a vet or experienced breeder show you how to properly use.



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How to Make a BENT SPOON



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- 1...You will need 1 cup of water and 1 plastic spoon.
- 2...Place in the microwave til the water boils
- 3...Quickly (and carefully) remove from water and use fingertips to bend in the edges. Repeat, if needed.



Urological Catheter

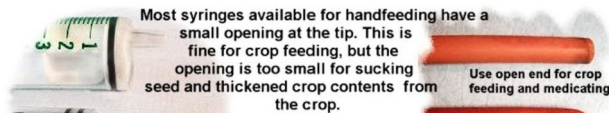
Packaged in 16" lengths
Use sharp scissor to cut to the desired length

10cc syringe with size 12F catheter (open end) can be used to crop feed chicks

A 3cc, 5cc, or 10cc syringe with a size 14F (closed end) catheter can be used for emptying crops

A 1cc syringe with a size 10F catheter (open end) works well for delivering medications or crop feeding small chicks

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Most syringes available for handfeeding have a small opening at the tip. This is fine for crop feeding, but the opening is too small for sucking seed and thickened crop contents from the crop.

Use open end for crop feeding and medicating

Use closed end for emptying crops

A larger tip syringe can be found at most drug stores. They are packaged as oral syringes for medicating children/infants.

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****NOTE:****

When the rubber tubing is cut the edges can be very sharp and 'can' cause small cuts/lacerations to the delicate throat tissue. To safeguard against this use a lighter to heat/melt the opening of the tube. While the rubber is still hot use your fingertip to round the edges.

Shown are:
Cut and Rounded edges of tubing

Needlenose pliers works well for stretching the tubing

Alcohol can be used to remove the sticky residue from the tubing.

CAUTION....



Monoject Syringe

This is the **most dangerous** syringe to use for handfeeding. The long curved tip can lacerate the throat if a chick bobs too hard against the tip. If the tip is cut off to shorten it tiny sharp edges are left that can cut and lacerate the inside of the chicks throat, which can result in blood loss and/or infection.



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Injuries or lacerations to the throat can be fatal...

Care should always be observed with the choices of feeding tools/utensils used for handfeeding. Many times a life is sacrificed needlessly in order to save time or make our handfeeding duties easier.

Cut artery from the sharp edge of a feeding tube which resulted in blood loss and infection that contributed to an untimely death.

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Injury to the throat causing food to get deposited and trapped between the tissue.

When handfeeding care should be given to both quality of the syringe tip and how to properly use any tool/utensil that gets inserted into the mouth/beak. Always check to make sure that the edges of syringes and feeding tips are smooth and free of sharp edges or burrs.

Cannula Tips

Cannula feeding tips, pipettes, and curved tip syringes should **never** be trimmed or cut to enlarge the opening because many times this leaves rough edges that can result in injury and untimely deaths.

Rough edges from cutting the tip openings larger result in tiny burrs that can cut/lacerate delicate throat tissue.

A tear to the tissue from the use of a feeding tip extender (cannula) that had a burr contributed to this injury with the formula trapped between the skin

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LEFT HAND

NOTE: The right hand holds the head and the left hand holds the syringe.

HAND POSITION FOR SYRINGE FEEDING BABIES

Thumb is placed on the opposite side of head

The index finger is used to gently pry open the beak at the back to open

This finger is used to support under the chin

These fingers are used to support the back of the neck and the little finger is pressed against the back to hold chick still

This type of grip allows you to open the chicks mouth, stretch the neck upwards, and have a firm grip to hold the chick still while handfeeding

This hand position also helps to prevent aspiration and the mess of formula on the head/face.

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NOTE: The formula is slowly released from the syringe, and directed to the BIRDS right side of the throat.

RIGHT HAND

NOTE: The left hand holds the head and the right hand holds the syringe.

HAND POSITION FOR SYRINGE FEEDING BABIES

The thumb is placed on the opposite side of the head

This type of grip allows you to open the chicks mouth, stretch the neck upwards, and have a firm grip to hold the chick while handfeeding.

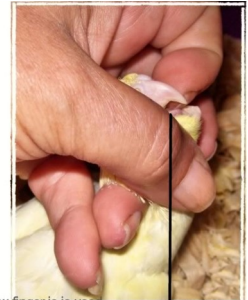
This also helps to prevent aspiration and also the mess of formula on the head/face.

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The index finger is used to gently pry the beak open

This finger is used to support the chin

These fingers are used to support the back of the neck and the little finger is pressed against the back to hold the head of the chick from moving



NOTE: The formula is slowly released from the syringe and directed towards the BIRDS right side of the throat



DIGITAL SCALES

A scale is indispensable as a tool to monitor the health and growth of a chick. Select a scale that weighs in increments of 1 gram.

When in doubt on how much to feed a chick, weigh it, and calculate 10% of body weight as the amount to feed per feeding.

Make it a habit to daily write down the weight (weigh when empty) and how much is fed per feeding.

Weight loss is an alert to a problem.



DIGITAL THERMOMETERS

When hand-feeding it is good to check the temps. of the formula being fed. If it is too cool, this can contribute to slow crop, and if too hot the formula can scald/burn the inside of the crop. The best temp. when handfeeding are between 104-106 degrees.



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When a chick hatches the parents do not feed right away (first 12+ hrs) because the chick will be getting nutrients from the yolk that was absorbed into the body. The ONLY thing they will feed is fluids to help maintain hydration. If you notice the intestines are dark you can assist feed 1 drop of warm water/electrolyte.

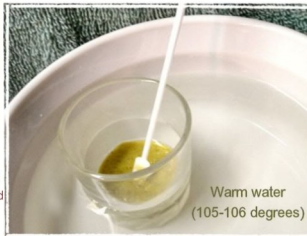
HAND-FEEDING FROM DAY ONE



Hold the head firmly and the neck stretched upwards. Place the tip of the syringe along the edge of the beak opening, and release the food s-l-o-w-l-y, watching that the tongue moves the food to the back of the throat and is swallowed before releasing more. Be careful, it is easy to aspirate the chick.



Place mixed formula in a bowl of warm water



Mixing small amounts of formula

One of the most frustrating things when hand-feeding is throwing away excess formula.

When the chick is empty, weigh it, and calculate 10% of its body weight.

Once you know this, draw up this amount of water in a syringe (per bird, if feeding several) and put into your mixing container. I use shot glasses for hatchlings or one chick, and cups when I am feeding a clutch.

You can warm the glass with water in a pan of hot water, or microwave and cool water to 108 degrees.

Add in the powdered formula. Check the temp. with a digital thermometer. The formula should be 104-106 degrees (40-41C)

Place in a pan of warm water to keep from chilling.

Once fed you should have little to no waste.

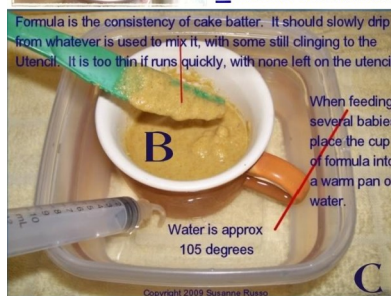
When Assist Feeding in the nest...



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Mix some formula in a small glass. Place in a bowl of warm water to help maintain the temp. of the formula.

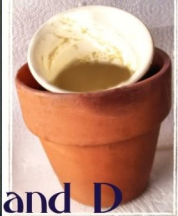


Some helpful tips when hand-feeding

A and B: the consistency of the formula should not be too thin or thick. It should slowly drip (A) from the mixing utensil. If too thin/watery the baby does not get enough nutrients, and too thick is harder to digest and can sometimes impact in the base of the crop.

C: Place the mixed formula in a pan of warm water to keep it from chilling.

D: Use another container to hold and tilt the cup to get the last bit of formula



I try not to pull any babies until they are 3-4 weeks old. At this age I am feeding 3 times a day. 8cc AM, 5-6cc lunch, 8cc PM I use a 6-6-12 schedule. This means 6 hours between 2 feeding and 12 hours overnight. Schedule is revolved around when I start the day for the first feeding.

Some Guidelines:

1. Feed 10% Of body weight. if you don't have a scales that weighs in grams in .1 increments you can find one at an office supply (such as a postal scales).

2. Formula should be the thickness of baby food applesauce and be the temp. of 40°C-41°C degrees when feeding
3. Allow the crop to empty between each feeding.

I normally pull my babies at 3.5 to 4 weeks of age.

You can use a chart to keep track of when and how much you feed.

Also keep track of the weight of your baby. Always weigh the bird when it is empty. At fledgling age you may notice the baby has lost a few grams. This is normal, especially if you have noticed that they are flapping their wings and trying to fly. Once they have taken their first flight (never let them fly with a full crop, this can cause aspiration if they crash and food gets forced up the neck) they should start gaining a little more weight again.

The reason for weighing is also it can be your diagnostic tool to make sure things are fine. Sometimes a baby may appear fine, but start dropping weight rapidly. If so, this is an alert that there is a serious problem going on.

I start them on 3 feedings a day, 8cc morning, 5-6cc lunch, and 8cc night. The reason why so little is because at this age their crop has shrunk considerably because the parents have already reduced the amount fed.

They are in a big container with pine shavings, with half of the top covered. If they are fully feathered there is no need for heat...room temps are fine.

I place a small bowl with seed, and sprinkle some on the bedding near the bowl. I also place millet in with them.

It takes them approx a week to explore and start nibbling. The container is big enough for them to walk around, explore, and flap wings for exercise.

I write down every day how much I feed per feeding and amount.

Once I start seeing them nibble on millet seed, I will daily decrease the middle feeding by 1cc per day, and reduce daily down to 0cc, and at 9 skip the middle feeding.

When they are down to 2 feeding a day, I will move them to a cage.

By then I introduce greens, veggies (separate dish) during their skipped lunch feeding time.

Once I see them nibbling eating more, then I daily decrease the morning feeding down 1cc per day. Once down to 0, then they are down to 1 feeding (night) a day.

I wait a day or so and then start decreasing the nighttime feeding by 1cc a day. When I get down to it reduced to 2-3cc many times they are starting to refuse the formula. If they still want formula hold it at 2-3cc for a week or so, feeling their crop to make sure they also have food in there from trying to eat on their own.

Once I finally get to where I am no longer hand-feeding I will make sure that at the normal nighttime feeding I change out food and water so that they have fresh, and give more millet or other treats they will eat. At their normal bedtime I feel the base of the crop to make sure I can feel food in it. This goes on for a few weeks before I can consider them weaned.

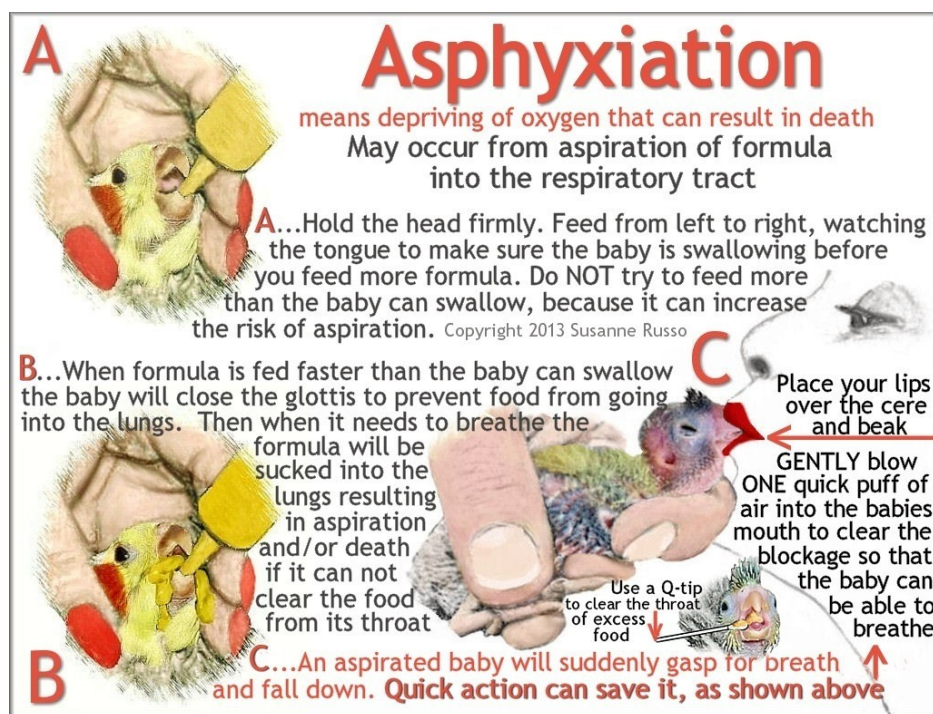
Sorry, it sounds long and confusing. But if you write your daily feedings on a calendar it makes it easy. And it is far better to slowly taper down a feeding than to cold turkey skip a feeding.

If the babies are fully feather room temperatures are fine. NOTE: you can also put a thermometer in the nestbox prior to pulling (away from the babies) so that you can get a reading of the temps they are used to. This reading will be just a little warmer than room temps...but if you have them in a brooder, container (you can use one of your nestboxes for their brooder) they should be fine.

As to being harder to feed it depends on your management of the pairs while set-up. If they are used to you checking the nestbox daily and handling the babies once they have hatched several times a day, then the babies should be used to you, calmer and less flighty than if you did nothing. You can also assist feed them from 2 weeks old while in the nest (just a little to get used to the syringe) and this makes it easier for them to adapt to handfeeding.

Aspiration Scare

Well I know I'm not the only one who dreads this, and it can happen so quickly that everything seems lost. Last Night I went to give my clutch of 4 week old their bedtime feeding, everything was gonna great, until baby number 5's turn, I'm not sure exactly what happened one minute his head was bobbing for food and i was giving it to him and the next he was withering and convulsing on the table, thankfully because of Susannes Advice on another thread I had read the baby is fine. I was so scared for a moment, and then my brain remembered and I just picked up that baby put his little beak in my mouth and gave it 2 quick but soft breathes, i then held him and checked him over once he was back to crying and being himself, i placed him in with his clutch members, he then proceeded to do the kissing motion with his siblings and seems to be back to his normal self. It can be such a scary experience, and even the most experienced breeder will aspirate a chick, and being fearful of aspirating another is not the way to go especially when you have 8 others who depend on you. Just thought I'd share my experience in hope that it can help others.



This can happen sometimes (rare instances) when parents are feeding chicks in the nest. I have found that many times soft foods tend to be more sticky and can gunk in the babies mouths and

impact in their throats preventing food from going down the to the crop. The next time they feed the airway gets blocked and the chick smothers and dies.

It is always best to check the inside of the babies mouths for the first 10 days to make sure they are clean and free of any buildup inside the mouth, or face/head.

Bedding such as Carefresh or corn cob can also be cause for aspiration in the nest.

Mutation Abbreviations

Many times you may notice that a person will use initials or abbreviations to describe the mutation (color) of the tiel they have. if you are not familiar with the mutations this can get confusing.

Abbreviation	Mutation
N	Normal
P	Pearl
pD	Pied
L	Lutino
C	Cinnamon
WF	Whiteface
F	Fallow
RS	Recessive Silver
DS	Dominant Silver
DYC	Dominant Yellow Cheek
SLYC	Sex-Linked Yellow Cheek
GC	Gold Cheek
PF	Pastelface
EM	Emerald or Olive

For further confuse the issue you may see something like this: N/WF,F,pD... and wonder what it means.

The / symbol designates the splits the bird is carrying. In the example the Normal is split to (/) Whiteface, Fallow and Pied.

OMG! My baby chick have splayed legs! Any solutions?

Hi I have a 4 days old baby cockatiel. Due to abandonment from its parent, i took care of it and have been handfeeding it.

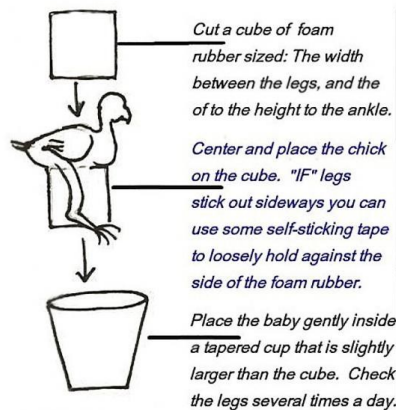
Right now the baby chick have splayed legs!!!

Any solutions?

I heard that splayed legs can be fixed when they are young, is it true?

Ok....you can start by doing something similar to the picture below. Since the chick is still young you can use a small cotton ball for between the legs and a small medicine cup.

A suggested means of correcting splay/spraddle legs



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This condition is preventable. The primary cause is the chick does not have a good surface, such as bedding, under it and it can not get a firm grip, thus the legs slip out from under it. Most spraddle/splayed leg starts from hatch when the chicks bones are soft and flexible. If noticed right away place bedding under the chick. If the bones are bending gently hold the area between fingers for 30 sec. Do this several times a day.

When checking nestboxes,

from the time the chick hatches,

check to make sure there is

plenty of bedding under the

chicks. When they are on the bare wood or a

slip surface it is hard for them to get a good

grip. When this happens the weight of

the chick can cause the legs to splay out from the body.

When the chick has no bedding to grip the toes will clench and the legs can slide out from under it.



Compound fractures are a result of not enough calcium.



Heat from contact with a heating pad (meaning not enough bedding above the pad) can also contribute to splayed legs. When little the bones are very soft and flexible, and heat just causes them to bend more easily at the joints.

Do you have it in a container to help keep the legs closer to the body and in a more normal position of the legs?

You can take the baby out several times a day to check the legs, and give a little physical therapy such as extending the legs to help with the muscle, and to also use your fingers to hold the legs in the proper position to 30 sec. at a time...then back in the cup. it can take as little as a couple days to a week to reposition the legs into the normal position if they have not calcified at the joints.

Check the bedding in your box. You want plenty of bedding under the babies, otherwise they can at risk of this too. ALSO, make sure that you have plenty of calcium sources for the parents especially if the babies are under 10 days old. In addition to splayed legs they are at risk for compound fractures, which can become permanent.

When babies are under 7 days old their joints and bones are still forming, therefore they are flexible. Even though it is going to hurt you might want to do some 'physical therapy' by flexing the leg and hip into a normal position for 5-10 seconds several times a day, and the chick in the cup 24/7.

Crop bra instructions and application

Shown is a pattern to make a crop bra. You can find the Vet Wrap or Co-Flex at most feed stores. It is a very thin flexible self adhesive bandaging material. Use sharp scissors to cut the material to size. The size shown is 'an approx. for 2 1/2 to 3 week old babies.

Before you begin check to make sure that the crop is empty before fitting the crop bra to the bird. If there is old or sour food in the crop you need to empty this out of the crop. An empty crop also reduces any risk of aspirating the chick, especially if it is struggling while fitting the crop bra.

I've found that sometimes the bandage doesn't want to stay self adhered where pressed together. Then I will just loosely tie and knot the straps. First tie the long straps (which are the long parts of the H) under and behind the wings. The bottom part will be resting on the abdomen area, right behind the crop by a 1/2" Do not tie too tight. You just want it snug. Next tie off the front straps in front of the shoulder and at the base of the back of the neck, leaving just enough slack to form a slight sling where the crop area is at. You want the bra fitted so that it will hold the crop tissue up above the opening into the body at the base of the crop.

Let the baby get used to this before you feed him. I have seen babies fight it and flip over backwards and look like bucking bronco's until they are used to this.

You will not be feeding as much as you normally do. The first few days you will be feeding less but more often. The goal is to have good digestion and to support the stretched crop skin so that it can start shrinking back to normal. If the crop is not fully emptying between feedings, empty what you can before feeding fresh food. *Special Note:* When you have an overstretched crop never use ACV (vinegar) as a flush or in the formula. The acidity tends to hinder the tissues from shrinking.

As the baby grows check the tightness of the ties. Adjust if needed. If the baby is growing quickly cut and fit a new crop bra. Some babies only need the bra for a week, some take 2 weeks or more to have the crop tissue go back to normal. For the first few days after the crop bra is removed try to feed less more often so that you don't stretch the healed tissue.

You will notice that the crop is working fine because if you watch it you will notice it moving and churning the food. This is called peristaltic actions or waves. What is going on is the muscles are churning the food to deliver it into the cervical esophagus which is the opening to the digestive tract at the base of the crop. Movement should be noted every 10-15 sec. The crop itself is simply a reservoir for holding food.

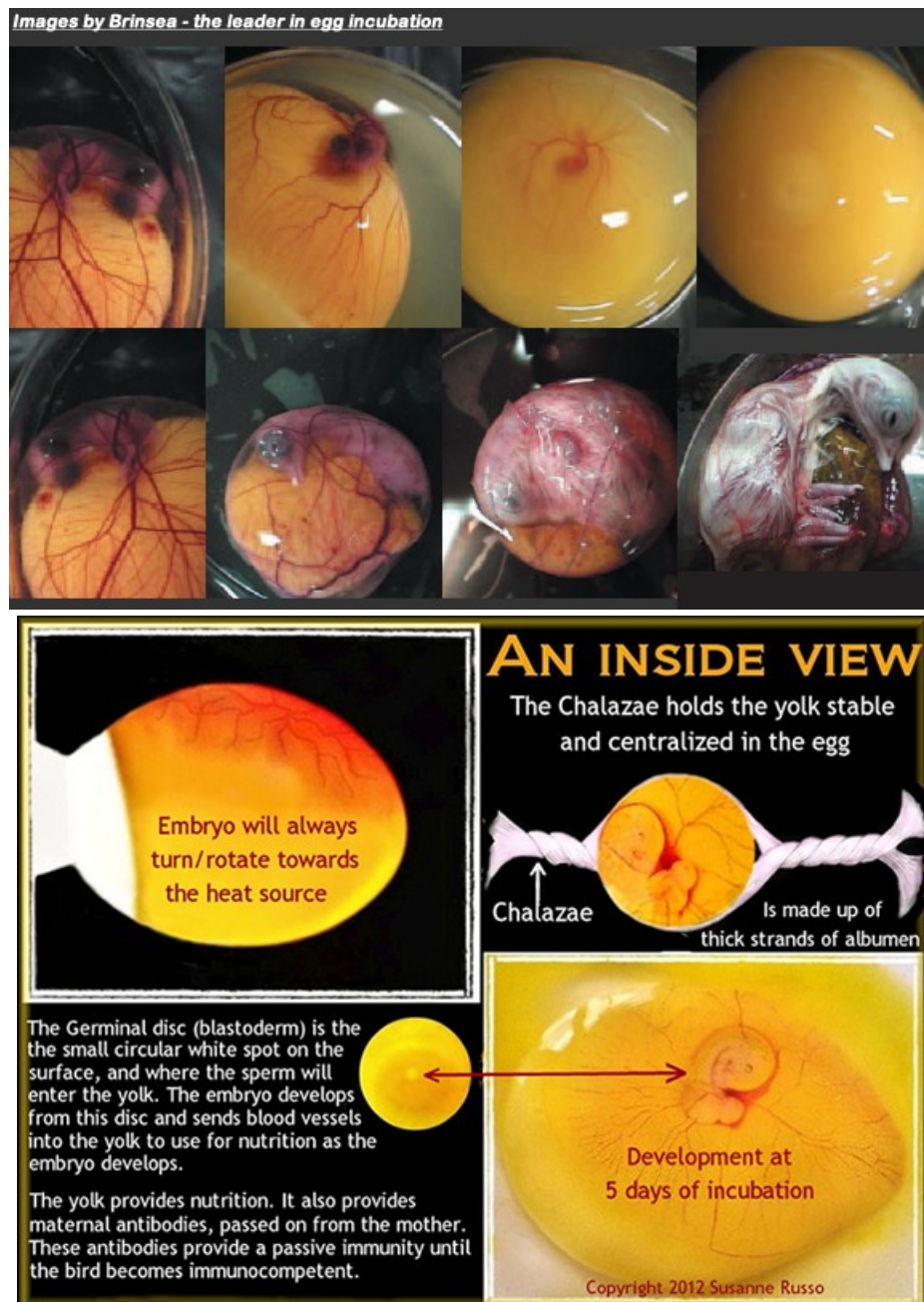


Why would a baby need a crop bra?

When the baby isn't digesting food and the food is just sitting in the bottom of the crop, not going through the digestive tract. The bra lifts the crop and aligns it with the gut to keep the food on the same level helping with digestion.

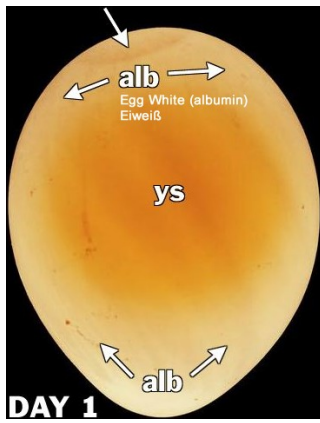
Embryonic Development of Cockatiels

This study was done by the animal science department at the University of California. They go through a series of images showing development of a cockatiel from the inside out so to speak. There are also two images of embryos that did not develop.



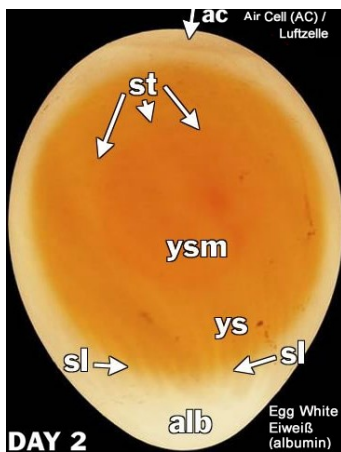
Day 1

Beginning Of Alimentary Tract; Vertebral Column; Nervous System And Head



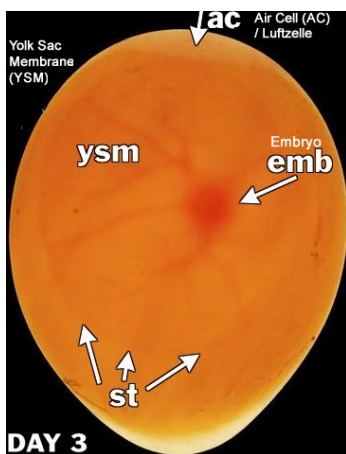
Day 2

Beginning Of Ears And Heart. Heart Is Beating.



Day 3

Beginning Of Nose, Legs And Wings



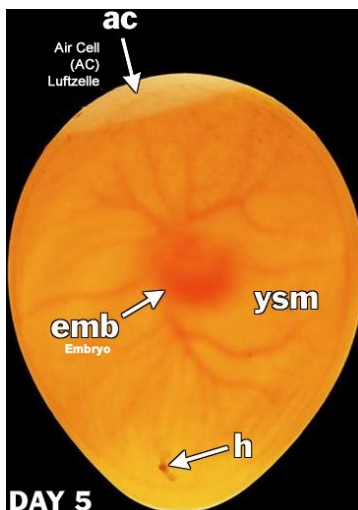
Day 4

Beginning Of Tongue



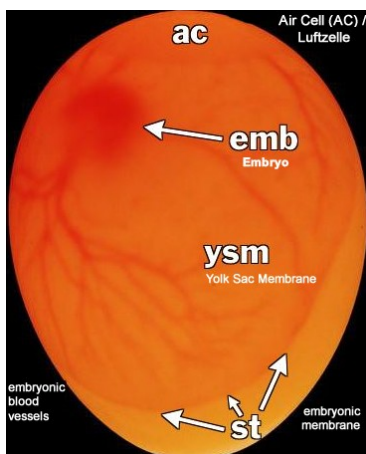
Day 5

Formation Of Reproductive Organs



Day 6

Beginning Of Beak

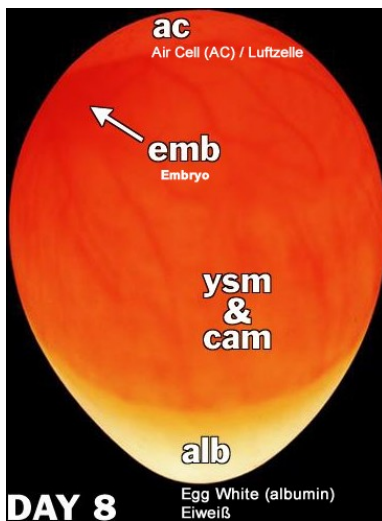


Day 7

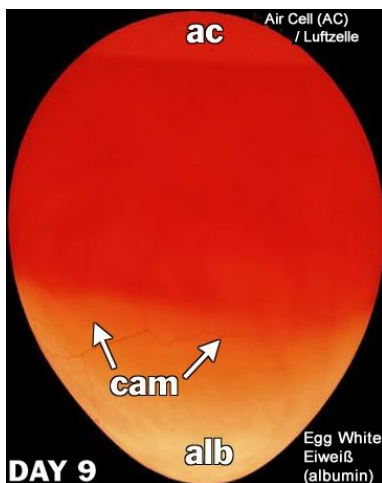


Day 8

Beginning Of Feathers

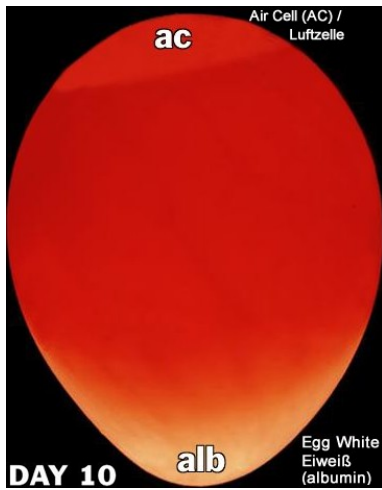


Day 9



Day 10

Beginning Of Hardening Of Beak

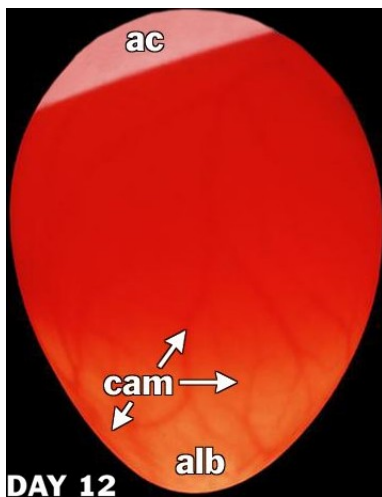


Day 11

Appearance Of Scales And Claws



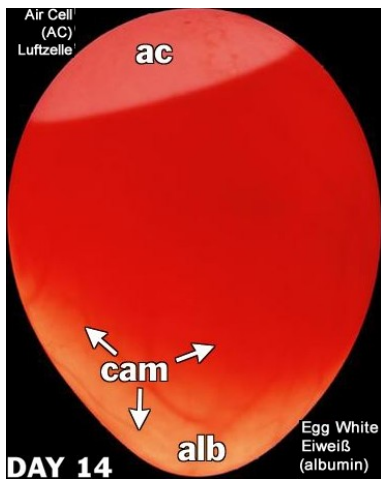
Day 12



Day 13



Day 14

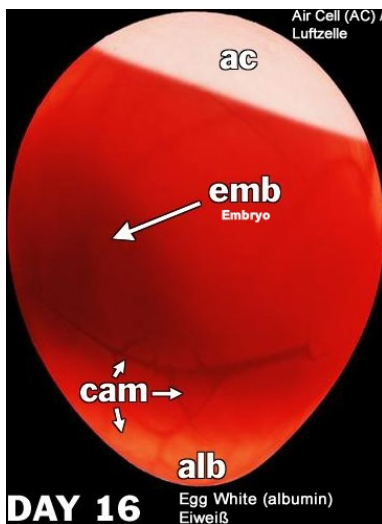


Day 15



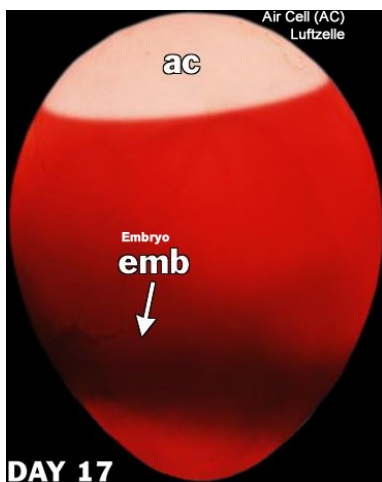
Day 16

Scales, Claws And Beak Becoming Firm



Day 17

Beak Turns Toward Air Cell



Day 19

Yolk Sac Begins To Enter Body Cavity

Day 20

The Chick Is In Hatching Position. It Has Pierced The Air Cell With Its Beak. Pulmonary Respiration Has Begun.

Day 21

The Chick Breaks The Shell With Its Egg Tooth (The Sharp Horny Structure On The Upper Beak, Which Will Disappear Within Days Of Hatching). An Enlargement In A Muscle In The Back Of The Neck Also Helps The Chick Force The Egg Tooth Through The Shell.



EACH DAY THE CHICK SHOULD GAIN WEIGHT. SKINTONE IS A HEALTHY PINK. BE ACTIVE WHEN TOUCHED



COCKATIEL CHICK GROWTH CHART

NOTE: Weights may be similar as shown above.

COMPARISON WITH A NEW HATCHLING



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Buying/Selling Unweaned Babies and What to Do

Buying unweaned birds from a breeder, petstore, can be very dangerous. It is a wivestale that birds will bond better to you if you handfeed them. This is very dangerous to do if you have no experience in handfeeding. Handfeeding is best left up to people who know how!

Handfeeding is dangerous. Handfeeding is not just filling the crop of the baby and expecting nothing bad to happen. Accidents easily happen even to experts.

Even if the petstore tells you that the bird is weaned and eating on its own, and they tell you it is a young baby still in pin feathers, it is NOT weaned. A fully weaned cockatiel is around 8-10 weeks, some as long as 12 weeks! So ask the petstore or breeder the bird's age. If they tell you any age younger than 8 weeks, this bird is not weaned, and it is best to shop elsewhere. A good breeder will not sell baby birds unweaned! If they tell you the bird is fine at that age and continue to try to sell the bird, it is still not advisable to buy the bird. If you do not know how to handfeed, you are not doing any good for the baby bird.

Many things can go wrong with handfeeding. Mistakes can cause the bird to die or suffer horribly.

What can go wrong with handfeeding:

Crop burn

Formula should be fed at 40-41 degrees Celsius. Formula should not be microwaved. It should be heated up by hot water and when made, it should be kept in a cup placed inside hot water to maintain an even temperature. Microwaved formula can have "hot spots", which are hot pockets hidden inside the formula which may not be detected by the thermometer. If this happens, these hot spots can burn the baby's crop. This can cause infection and cause the bird to die. Formula is not the only cause of crop burn. Contact with heating pads can also scald the outside of the crop. When using a heating pad make sure there is plenty of bedding or padding to prevent the baby from pressing against it. This shows what crop burn looks like:

If you are unsure of a crop burn check the base of the crop. (Below) Within 24 hrs. the skin will appear reddened and blistered.

Within another 24 hrs. the skin is weakened and a hole is seen at the base of the crop which food will leak from. (Right)



CROP BURN

Crop burn is a result of feeding formula that is too hot (115 degrees or more) or if a chick's crop is pressed against a surface that is too hot, such as a heating pad. It takes 2-3 days before you can be aware of a crop burn.

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Aspiration

Aspiration is when food goes into the respiratory system. Birds have two different tubes in the back of the throat. If you put the formula down the wrong tube, you could very well put food into the birds lungs, and if this doesn't kill the bird instantly, it will cause pneumonia or other infections and cause the bird to die. Aspiration is essentially drowning the bird with food. It is very easy to aspirate a baby bird.

Injury to beak and throat

If you are not careful with a baby bird, you can easily cause injury to the bird's beak. This can result in a lifelong deformity of the beak and this will need to be maintained it's whole life. In some cases, some birds will need to be euthanized because of the suffering they can go through. Also, with some babies, they are very enthusiastic about feeding and bob their heads. If they are too enthusiastic, their head bobbing can cause the syringe to puncture the throat or crop. This can cause infection and the bird can potentially die.

Bacterial infections

If you do not clean and disinfect the syringe after every feeding, bacteria can grow in the syringe and cause bacterial infections in your baby. Proper hygiene is very important for handfeeding. Formula should never be reused. Formula should be made for each feeding and any leftovers should be thrown out. Letting formula sit allows it to grow bacteria, even after a few hours in the fridge. Feeding this to your baby can cause yeast infections and bacterial infections. This can kill your baby without treatment.

Sour crop/slow crop

Feeding your baby the right amount and the right consistency for its age is VERY important. Feeding formula too thick can cause slow crop or sour crop. Same with feeding formula too cold. What happens is the bird cannot digest the formula properly and just sits in the crop and becomes rancid. If left untreated, your baby will die from malnutrition and/or infection.

Malnutrition

Feeding formula too thin, or not the right amount of feedings, your baby can be malnourished. If the formula is too thin, the bird will not absorb the right amount of nutrients from the formula and this can cause deficiencies and some defects from these deficiencies. You can check the keelbone to see if the baby is maintaining weight

Overfeeding

Over feeding a bird can cause the birds crop to stretch. This can lead to problems such as overstretched crop/sour crop and obstructions. It is very important to know how much formula per feeding is right.

Never force wean a baby bird. Force weaning causes many behavioral problems in birds, and many of them last for life. Force weaning is when a bird is forced to eat only adult foods, and formula is suddenly not offered to the bird. This can cause stress which can cause secondary problems such as yeast infections or bacterial infections. It also causes psychological damage to the bird. This can

cause picky eaters and other problems psychologically. A bird should be weaned at its own pace, not at the owner's pace, even if this means the bird will not wean until 12 weeks old. Some birds take longer to wean than others. Knowing how to properly wean is very important. NEVER completely stop handfeeding abruptly! Gradually decrease the feedings as the bird gets older. Always feed according to age and weight!

What to do if you already bought an unweaned bird

So you already bought a baby bird unweaned, whether you know or ended up with the baby accidentally. Or, in many cases, the bird was weaned at the store/breeder but suddenly the baby is begging for food. This can happen and it is called "regressing". Regressing can happen with a change of environment. The stress from bringing the baby home can cause the bird to regress and this bird will need to be handfed again. If a bird appears to be eating but is losing weight or is not eating enough, the bird still needs to be handfed and can slowly starve to death.

So what do you do?

First, you bring the bird back to the store/breeder if you can to finish weaning. It is very important the bird weans, because they can slowly starve to death.

If the breeder or store will not take the bird back for a little while to wean it, you have to do the next best thing--go to the avian vet or another local breeder in the area and be taught how to handfeed. You will need to be shown how to do it properly to avoid the dangers listed above. You will need to have all of the proper equipment.

If these steps are not taken, please do extensive research on HOW to handfeed and watch videos as a last resort only. If nothing is done, your bird can starve to death or have other problems throughout its life.

How do you know if your baby regressed or is unweaned?

Regression

If your bird is 8 weeks and older and was completely weaned and you brought it home and suddenly you have a bird bobbing its head, begging with a sound that sounds like radio/TV static and refusing to eat on its own, your bird has regressed and may need to be handfed or at least supplement fed. Supplementing a feeding is giving a feeding or two for comfort as the bird felt comfort from being handfed and feels insecure in its new environment.

Unweaned

When you go to the breeder/store, and you ask the age, if they tell you any age younger than 8 weeks, the bird is likely not weaned despite what they may say. Do not buy the bird. If you really want that particular bird, you could ask them to hold it for you until it is done being weaned.

Look at the bird. Look at its plumage. Is it fully feathered or is it full of pin feathers? If the bird is covered in pins, it is not even close to weaning age. Note, some birds have their feathers plucked by some parents. If this is the case, look at the tail and wing feathers. These feathers are usually intact. If they are fully grown in and do not look short or stunted, the bird is likely older despite the pins. If

you see that the flight feathers are short and stunted and do not look normal, your bird is younger than 8 weeks, and likely not weaned.

Look at how the bird stands. Is the bird standing upright on its feet, or is it sitting lower, with its ankles touching the perch? If the bird is crouched on the perch with ankles/legs touching the perch, the bird is young and too young to be weaned.

Look at how the bird behaves. Does the bird bob its head and screech sounding like static? These are tell tale signs that the bird may not be weaned.

So, whether you bought the bird knowing it was unweaned or unknowingly, or your bird has regressed, we hope you will follow the advice given, and become aware of the problems that can arise with handfeeding.

Keeping Breeding Records

When venturing into breeding cockatiels it is a good idea to keep breeding records. It is a good reference you can look back on with each pair.

Make a file folder for each pair. In the file you would need to add as much info as possible, such as mutations and compatibility, caging, bedding, diet, environmental and seasonal info, dates setup and rested, results such as how many eggs layed, fertility or infertility, egg abnormalities, reproduction problems (such as egg-binding, prolapse, etc) hatch success or failure and why, live hatches and how many survived, parental skills....you get the idea J Also try to keep a digital record, such as photo's of the pair, your setup, anything related to egg abnormalities.

In having these records you can look back to see past success or failure with a pair and if there were problems hopefully have them resolved for a successful clutch in the future.

If you separate a pair, you will have some records to refer to in regards to how well they did as to incubating and feeding and care of the chicks. These records would be helpful in pairing a bird with a good breeding record with an experienced one.

If you are new to mutations and what pairings work best for a desired mutation offspring record keeping of the parents mutation and recording the mutations in the nest when the chicks feather can be useful in updating the parents genetic records by listing the splits either parent may be carrying. as you learn genetics this info can be very helpful in pairings.

Many breeders, when working to improve the mutation, or to hold back young for future breeding should consider banding the offspring and keeping records.

Another thing I have learned is to 'Listen to your birds' What this means, especially since they do not talk, is to be observant of body behavior and other clues of if they are happy, discontent, having problems etc. In watching them they can teach you a lot.

Causes of Infertility

Behavioral

- Immaturity
- Pair incompatibility

- Normal interaction between mates
- Compatibility in nesting and clutch duties
- Sexual inexperience
- Lack of social interaction
- Aviary disturbances
- Excess social interaction
- Homosexual pairs
- Lack of pair bonding
- Asynchronous breeding condition
- Improper imprinting
- Infrequent mating

Environmental

- Incorrect photoperiod
- Incorrect nest box design
- Incorrect bedding in nest box
- Incorrect enclosure/caging design
- Lack of visual barriers
- Excessive rain
- Insufficient rain
- Temperature
- Humidity
- Availability of correct foods
- Loose or incorrect perches

Medical

- Obesity
- Age (young or old breeders)
- Inbreeding, contributing to lethal and semi-lethal genes
- Vent feathers
- Drug therapy (causing vitamin deficiency or direct decreased fertility)
- Previous hormonal therapy (testosterone injections)
- Musculoskeletal

- Neuromuscular Disease(contributing to pain, paresis, ataxia, weakness, decreased muscle tone or in-coordination)
- Neurological Disease (paresis. Ataxia, lack of muscle control)
- Seizures
- Reproductive tract disease
- Nutritional deficiencies or excesses
- Systemic disease
- Parasitic disease
- Disease leading to malnutrition
- Malnutrition
- Cloacal abnormalities
- Abnormal cloacal pH
- Thyroid deficiency
- Toxins (pesticides, chemicals, mycotoxins, aflatoxins)

Causes of Death or Abnormalities in Embryos

First Trimester

Egg handling: such as storage and using an incubator

- Eggs stored too long
- Eggs stored under incorrect condition
- Incorrect egg fumigation or sanitation
- Excessive vibrations
- Rapid temperature changes
- High temperatures during early incubation
- Incubator faults: Temperature, humidity, turning, cooling after development has begun, suffocation due to incorrect ventilation

Other contributors

- Inbreeding
- Chromosome abnormalities
- Egg-transmitted infectious diseases
- Parental nutritional deficiencies or excess
- Abnormal or aged sperm

- Idiopathic developmental abnormalities
- Drugs, toxins, pesticides
- Cracked eggs
- Small holes in eggs

Second Trimester

Parental nutritional deficiencies:

- Riboflavin
- Vitamin B12
- Folic acid
- Biotin
- Manganese
- Pyridoxine
- Pantothenic acid
- Phosphorus
- Boron
- Linoleum acid
- Vitamin K
- Vitamin D3
- Secondary vitamin deficiencies
- Antibiotic therapy destroying vitamin-producing bacteria
- Diet imbalances and inadequate food intake

Other contributors

- Viral diseases
- Bacterial infections
- Fungal infections
- Egg jarring or shaking in first trimester
- Incubator faults
- Inbreeding resulting in lethal genes

Third Trimester

Malpositions

- Inadequate or incorrect turning
- Outside environmental factors and humidity
- Haphazard incubation

Incubator faults

- Poor incubator ventilation
- Egg cooling early in incubation
- Inadequate or incorrect turning
- Incorrect temperature
- Incorrect humidity
- Long storage time pre-incubation

Other contributors

- Infectious diseases
- Nutritional deficiencies: A, D, E, K, antithetic acid, folic acid
- Lethal genes
- Chromosomal abnormalities
- Idiopathic developmental abnormalities

Note: Brewers Yeast contains many of the nutrients listed above and would be an excellent supplement to offer the birds on a regular (1-2 times a week) basis prior to breeding. In addition, sunflower takes the bad rap as a contributor to liver problems, when in fact the Striped Sunflower seed is a powerhouse of nutrients. that are essential to a healthy egg and embryo...

Bellow are some pages that can help you keep track of your new babies...

20__ Band Record Sheet

[illegible]

Page Number

11

Pair Set-Up & Breeding Record Sheet

Hen ID	Species	Pair #		
Cock ID	Species			
Set-Up	Rest	Location	Cage	Colony

Laid	Hatch	Sex	#	Species	Pulled	Died	Comments
1							
2							
3							
4							
Notes:							

Foster Egg/Chick					Reason		
To/From	Hatch	Sex	#		Pulled	Died	Comments:
1							
2							

[illegible]

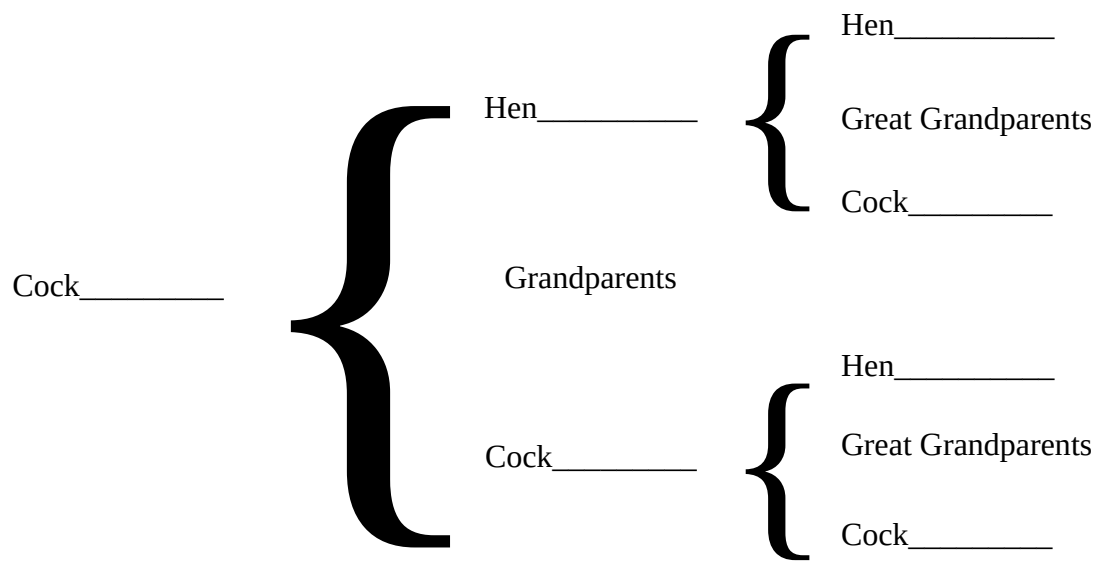
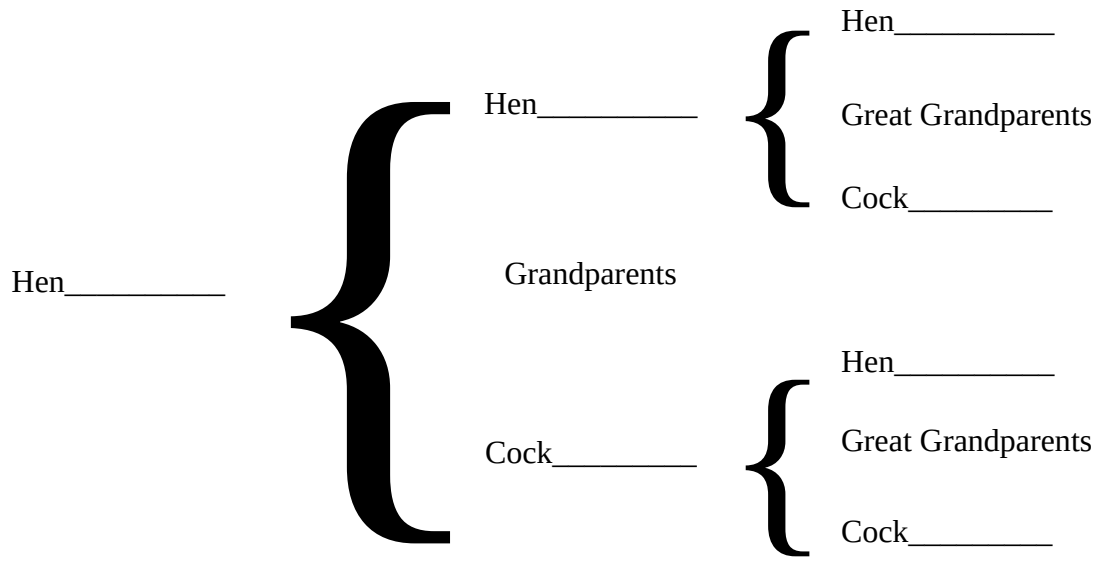
Pedigree

Hatched: _____

Color: _____

Band # : _____

Sex : _____



Avian Weight Chart

Species:					Name:					
Bird ID:	Sex:		Location:							
Reason for Monitoring	Sick		Adult		Chick		For sale		Breeding	
Comments:										

Date	Weight ()	Notes	Date	Weight ()	Notes

Additional Notes:

Nestboxes and nestbox litter

A typical cockatiel nestbox is a plywood box measuring 10 to 12 inches (25-30 cm) on each side. A circular hole approximately 3 inches (8 cm) in diameter on the front end of the box is the doorway for the birds, and a hinged lid or sliding door on another side of the box provides access for humans. The lowest point of the bird door is about 5 inches (13 cm) above the nestbox floor. There is frequently a concave area in the floor to help keep the eggs from rolling too far, but this is unimportant for cockatiels. A cockatiel nest needs to have 2 ½ to 3 inches of appropriate nest litter in the bottom, and the male will make a “dish” in the litter to hold the eggs. The importance of nest litter is discussed later in this article.

There are two primary types of nestbox: one that is designed to hang on the outside of the cage, and one that is designed to hang inside the cage. The “inside” type is most appropriate for walk-in aviaries, and the holes for hanging the nestbox are on the back side. The “outside” type is the easiest to use with a cage, but there has to be an opening on the cage that can be aligned with the nestbox door so the birds can pass in and out of the nest. This type of nestbox has the holes for hanging on the front end of the box (the same side as the bird doorway). Other variations are possible, for example attachment holes on the side of the box. Before you buy a nestbox you need to see how it attaches and determine whether this will work with your cage.

The hanging holes are designed to be used with screws and large flat washers, but if the design of the cage doesn't accommodate this hanging method you can pass thin rope or other suitable material through the hanging holes to tie the nestbox to the cage. Whatever hanging method you use, always try to eliminate potential hazards to the birds (like getting poked by a pointy screw end or getting tangled in rope). If additional support for the nestbox is desired, you can install a flat perch or some other form of support underneath the box to help carry the weight.

Most manufactured nests have a small perch sticking through the box below the door, but this is often useless for cockatiels because the parent birds will destroy it. A regular perch placed across the front side of the nest close to the door is a better way to make it easy for the birds to get in and out. They don't need a perch inside the nest.

Many owners have had success with improvised nests such as cardboard boxes, plastic boxes, and baskets. Improvised nests should be about the same size as a standard manufactured nestbox, and should be securely attached to the cage (if hanging) or stable enough that it is unlikely to tip over (if it's on the floor). Be careful about door placement in an improvised nest – the parents should be able to get in and out without difficulty, and the babies should not be able to fall out before they are ready to fly.

Ideally the nestbox should be placed as high in the cage as possible to make the parents feel secure. Many breeder birds will also feel more secure box if the nestbox entry hole faces the door to the room so they can see what is coming, instead of being able to hear something but not see it. Parent birds that feel secure are less prone to panicking in the nestbox. An adult that flees the nest in a panic may scatter or break the eggs, and injure the babies by trampling them or even accidentally dragging a tiny baby out of the nest.

A properly designed nestbox in a high place is safe for the babies because they will not be physically capable of leaving the box until they are old enough to fly. If they fall out of the nest at that point they will instinctively flap their wings to avoid a hard landing.

If the parents originally started nesting on the floor or some other unsuitable location, they will usually adapt quickly if the eggs are placed in a nestbox. But a minority will not accept the nestbox and will only be happy with the unsuitable location and/or an open nest. Giving them what they want will probably be the only way to save the clutch.

Nestbox litter

It is essential to have 2 ½ to 3 inches of appropriate litter in the bottom of the nest to provide warmth and protection for the eggs and babies. The nest litter has several important functions. It is a cushion under the eggs that retains both heat and moisture in the developing eggs. The bedding's ability to retain heat lets the parents go out of the nestbox for short periods of time without fear that the eggs will immediately chill. The parents bring moisture into the box when they bathe or dip into the water bowl before entering the nest. The bedding will absorb and retain this moisture which is needed the last week prior to hatch. The moisture is also beneficial for the first week after hatch for additional hydration (skin absorbs moisture) and feather growth for the emerging pinfeathers. Nest litter also prevents the babies from developing splay leg, a preventable deformity caused by the babies sitting on a surface that is too hard for them. Splay leg is curable if it is treated early, so take action immediately if you notice that your babies' legs are always at an abnormal angle.

The choice of bedding can sometimes mean the difference between success and failure in the nest. Wood shavings are the most common and problem-free nest litter. Aspen and pine are fine for birds, but do NOT use cedar because it is too aromatic. This type of litter is easily available at pet shops, usually in the small animal (rodent) department. Avoid brands that contain a lot of dust because the dust is an inhalation/ingestion problem, and can irritate eyes and sinuses. Kaytee is a nice clean brand. If you have a dusty brand, you can put some bedding in a colander and sift out the dust.

Bedding should not be wet or have a moldy smell. You can tell if it was wet in the past by looking at the pieces/chips, which should have a uniform surface color. If there are black/grey specks or stripes on the pieces the bedding may be contaminated with mold spores, which are a health risk to the birds and/or eggs. If the bedding definitely looks contaminated, throw it out. If in doubt, you can bake the bedding in the oven at a low temperature or spread it on a flat tray or surface and put it in direct sunlight for an hour. The sun acts as a natural disinfectant.

Do NOT use sawdust or corncob bedding as nest litter since these materials are hazardous. Long coconut fibers and other materials sold as nesting hair should not be used with cockatiels due to the risk that the babies will get tangled in it. Some people have used Carefresh bedding with good results, but it is generally not recommended for cockatiels because it is an ingestion hazard and can rob moisture from eggs, contributing to DIS eggs. Peat moss is also a moisture-stealer. Straw should be used only as a last resort because the sharp ends can puncture the babies' skin, and in addition there can be mold problems if the straw gets damp. Paper towels, shredded newspaper, and cloth are poor nesting materials.

Some parent birds seem determined to nest on the bare floor of the nestbox, and will throw out the litter until they reach the bottom of the box. In cases like this it is useful to put something under the litter that will prevent them from digging all the way down, and when they reach this material they will usually give up on trying to get rid of the litter. A piece of cardboard will serve this purpose – tear off one side to expose the corrugated inner layer, place the cardboard on the bottom of the box

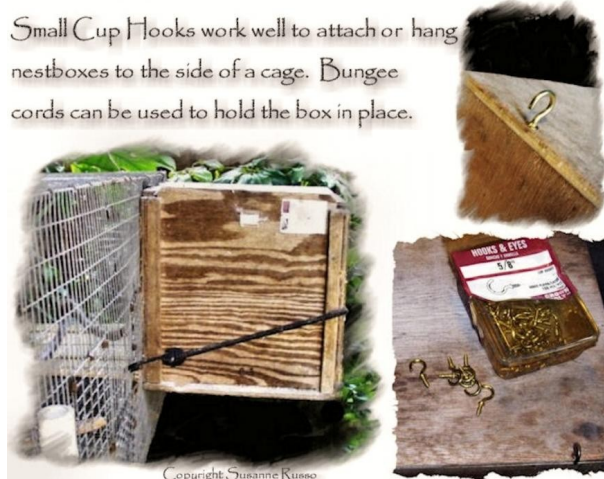
with the corrugations facing up, and cover with litter. Other materials that can be used for this purpose are AstroTurf and coconut fiber mats normally used to line plant baskets.

Cleaning the nestbox

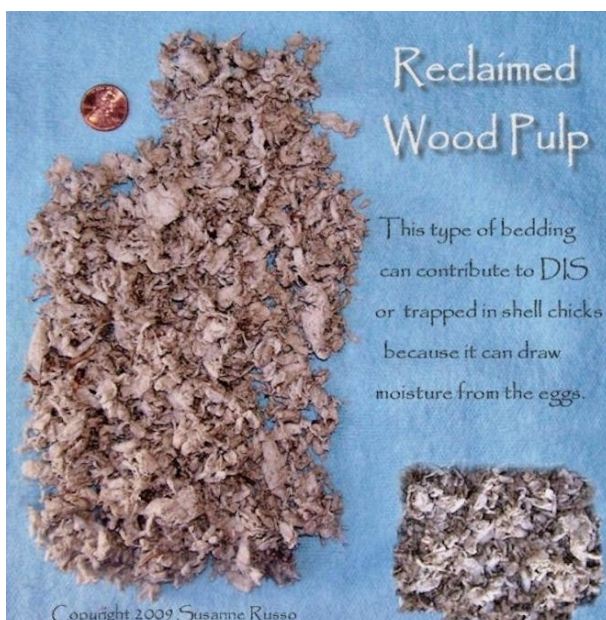
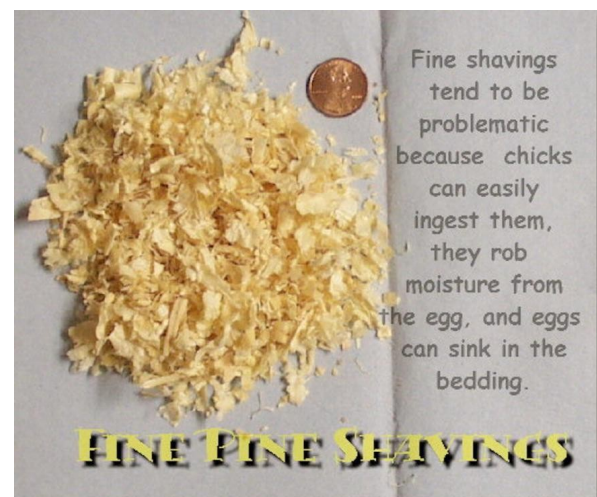
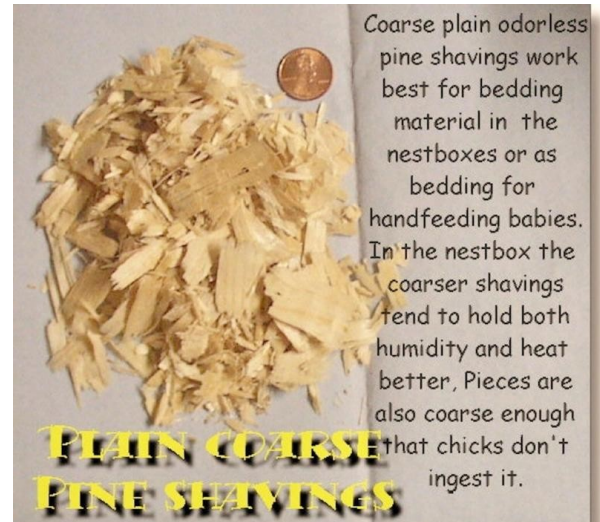
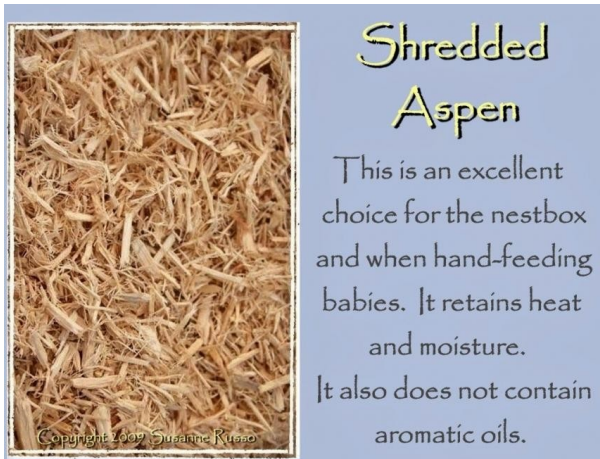
Don't do any cleaning or litter-changing during the incubation phase. The parents normally don't poop in the nestbox so it's not getting dirty. After the babies hatch you don't have to do any cleaning unless you want to - after all, cockatiel parents don't clean the nest. It's natural and normal for the babies to grow up surrounded by their own droppings, and this appears to boost their immune systems. But it's OK to periodically replace the dirty litter with clean litter if you want to, and maybe scrape some of the excess poop off the sides of the box. There's no need to wash the inside of the box, which would introduce extra moisture that might encourage the growth of unwanted microorganisms. You should thoroughly clean the nestbox when breeding is finished and you remove the nestbox from the cage.

Mites in the nestbox

Mites are rarely a problem for indoor birds but they can cause problems in outdoor aviaries, weakening or even killing the babies by sucking their blood. To get rid of mites, throw out the old bedding, sprinkle a small handful of Sevin 5% dust insect killer all over the bottom of the nestbox, then put 2-3" of fresh bedding in and fluff it up to mix a little of the dust into the bedding. The Sevin dust will not harm the birds.



Here is additional information on bedding.




Wing Spot Sexing


Normal

Wild type coloration is derived from two pigments:

Hen



Cock




Melanin: Provides the grey color in normal cockatiels. It is also present in the eyes, beak and feet


Lipochrome: Provides the yellow on the face and tail and orange seen in the cheek patch.

All mutations are a variation of the normal grey

When young both sexes will look like the female (Hen). If male (cock) the spots to the wing flights and barring on the tail will molt out into a solid color by the time he is approx. a year old. The cock will molt in a yellow facial mask, and the hens face will not change.




Adult Hen



Adult Cock

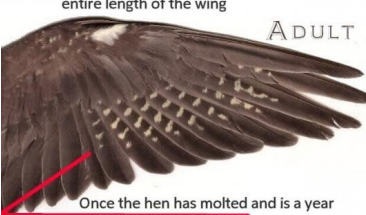
Presented by: Susanne Russo Copyright 2011

YOUNG



The dots will be seen on the entire length of the wing

ADULT



Once the hen has molted and is a year or older she will molt the dots closest to the body

FEMALE WING SPOT SEXING

Many times when a cockatiel is young you can determine the sex of the bird by looking at the underside of the wing.

A female will have dots/spots that are dispersed along the entire length of the wing flights.

By the time the female is a year old it will have molted out the dots closest to the body.

This is helpful to help determine if the female is young or over a year old.

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YOUNG



Many times the last/end flight feather may be a solid color.

The feathers closest to the body will not have spots/dots

ADULT



At 12 months and older the spots/dots have molted out to a solid color.


MALE WING SPOT SEXING

Many times when a cockatiel is young you may be able to determine the sex of the bird by looking at the underside of the wing. This can also be helpful to determine if the bird is young or over a year old.

Young male molting approx. 4-6 months old

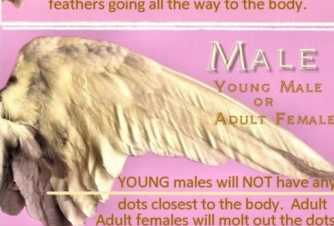
COPYRIGHT 2011 SUSANNE RUSSO

FEMALE YOUNG



Spots are seen on the on the dark feathers going all the way to the body.

MALE YOUNG MALE OR ADULT FEMALE



YOUNG males will NOT have any dots closest to the body. Adult Adult females will molt out the dots by the time they are 12 months or older

WING SPOT SEXING PIEDS

When young you can look at the underside of the wing to help determine the sex of a pied.

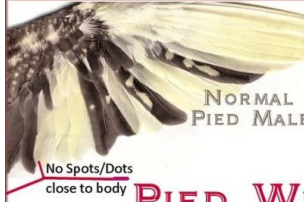
NOTE: Dot/Spot shape and size can vary. If the bird is also pearl the dots will be very elongated.

The yellow (also called clear) flight feathers will NOT have any spots on them.

NOTE: An adult female will molt out the spots/dots closest to the body.

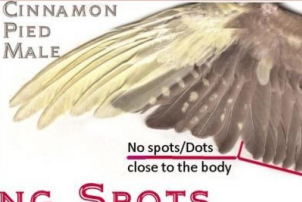
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PIED WING SPOTS



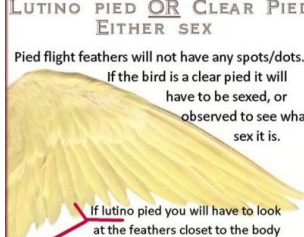
NORMAL
PIED MALE

No Spots/Dots close to body



CINNAMON
PIED MALE

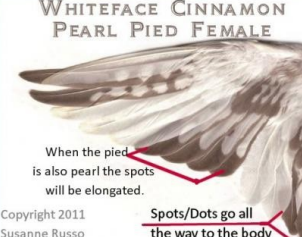
No spots/Dots close to the body



LUTINO PIED OR CLEAR PIED
EITHER SEX

Pied flight feathers will not have any spots/dots. If the bird is a clear pied it will have to be sexed, or observed to see what sex it is.

If lutino pied you will have to look at the feathers closest to the body to determine sex.



WHITEFACE CINNAMON
PEARL PIED FEMALE

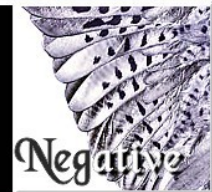
When the pied is also pearl the spots will be elongated.

Spots/Dots go all the way to the body

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What can Wing Spots tell us?



In memory and tribute to
Anne
Tonjak
&
Sam
a normal grey female
split to pied

Look at the shape of the
Wing Spots



If you look at Sam's wings your
1st guess would be Male
Nope, Female...Why?

The 1st thing to ask about any bird
age and mutations of the parents

This info helps to 'accurately'
determine the gender/sex

If age is unknown, but you know
the sex then looking at the
pattern of the spots
may give you some answers

Courtesy of Susanne Russo
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A 'Rule of Thumb' to go by

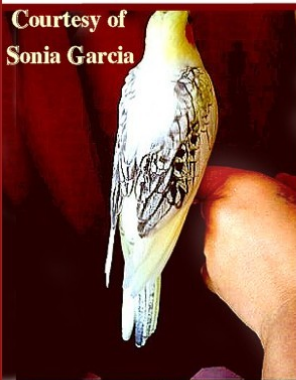
Males will molt
the Primary
and
Secondary
feathers
Females
will molt the
Secondaries
Only

Spot pattern of a Young Male
Or
Adult Female



Sexing a Pearl Pied is easy IF the mutation of the parents are known

Courtesy of
Sonia Garcia



Hmmm, the babies are feathered out and you are wondering if you
should spend the money to do DNA, or should you wait til their 1st molt?

Pearl and Pied can NOT be
Wing Spot sexed
when young

Below are the parents of this baby

If you have a basic understanding of
genetics you would've learned with the
Sex Linked mutations any babies that
visually show some of the fathers
coloration are females, and the ones that
don't are males

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I will 1st look
at the 2
center tail
feathers
If the tips are
a solid dark color,
from personal observation
I have learned that this
bird would be a Male



Photo: Courtesy of Engin @sultanpapaganlari.com

Young Pearl Male molting



All the wing spots, tail feathers and body barring will molt to a solid color

Courtesy of Susanne Russo, Copyright 1994-2015

You will have to wait until the 1st molt to Sex an 'Incomplete' patterned Pearl

When young and as the bird 1st feathers the Wing Spots may be faded/diluted

Males will molt the Primary and Secondary feathers and female will retain them with each molt

Primary

Secondary



Courtesy of Susanne Russo, Copyright 1994-2015

Pearls can not be Wing Spot sexed when young, But, there are other ways to determine gender

Male

Note: the exception for the Cheeks are if a female, with yellow streaks, this indicates split to Whiteface



Look at the Cheek Patch



Courtesy of Susanne Russo, Copyright 1994-2014

Young - Either Sex
Wing Spots can help to determine sex and approximate age



At first glance this looks like a female because the spots/dots are going all the way to the body. BUT, if the spots are faded or diluted looking this can be a Male, OR Female

Courtesy of Susanne Russo, Copyright 1994-2015

How to tell a young male from an adult female

Wing Spots of a young Male OR adult Female



Ask the age

If unknown, look at the body barring

ONLY the Males will molt the spots of the Primary feathers

BOTH sexes molt in solid Secondary feathers during the 1st molt

A basic 'rule of thumb' to remember is:
ALL solid color mutations have the coloration of a female when young

As the bird has its 1st molt the gender/sex can be determined



Wing Spots of molting Males

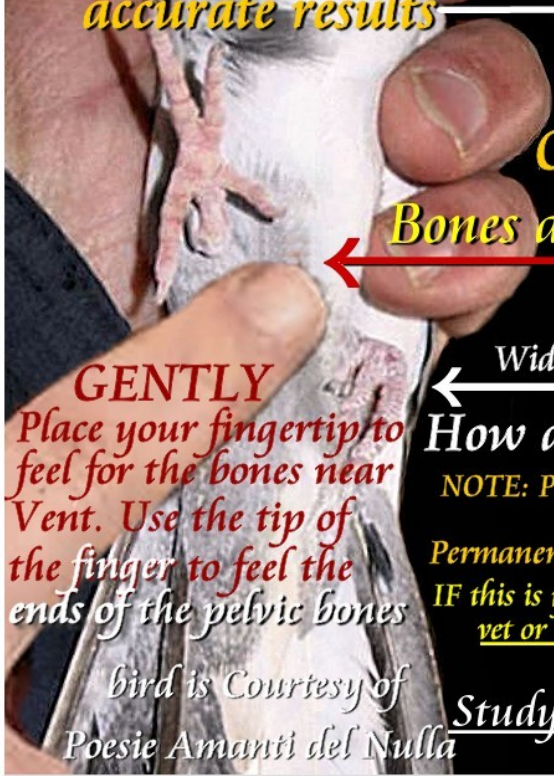


By 9-12 months most of the wing flight feathers will have molted and are replaced with adult feathers to determine the gender/sex of the bird

NOTE: Use this method on any bird after the 1st molt **ONLY**, for more accurate results

Pelvic Sexing

Does it work? What do I look for?



GENTLY
Place your fingertip to feel for the bones near Vent. Use the tip of the finger to feel the ends of the pelvic bones

bird is Courtesy of Poesie Amanti del Nulla

Pelvic CAUTION!
Bones are **FRAGILE**

Young or immature

Wide when young OR mature hen

Male
Pointed Sharp
bones are close together

Female
Rounded Blunt
bones are wide apart

check spacing

Pelvic area/girdle and the pelvic bones

How do I do this? Can I hurt my bird?


NOTE: Please DO NOT do this on young birds. These bones are VERY THIN and FRAGILE. Permanent damage and/or death could happen, don't risk it! IF this is your 1st time use this method on a mature bird. Have a vet or experienced person show you how to hold the bird and show you where and what to do

Study ALL the illustrations and info. above

Courtesy of Susanne Russo, Copyright 1994-2015

Closeup of the Pelvic Bones

Courtesy of Susanne Russo
Copyright 1994-2015



Spacing is **WIDE**
On a young, immature and mature females and close together on mature males

Use Caution!
Bones are very thin and fragile

NOTE
I've highlighted the tips of bones to show the shape to you should feel on a mature adult bird

Male
Close together, sharp/pointed

Female
Wide, blunt/rounded tips

Just some FYT's and some Cautions

NOTE: Please DO NOT do this on young birds. These bones are VERY THIN and FRAGILE. Permanent damage and/or death could happen. If a bone breaks it could perforate an organ or air sac. If a young hen, this can predispose her to egg-binding problems in the future

When Pelvic Sexing please take note of all the variables, most importantly age, for getting accurate results



An alternative to DNA or the 1st molt

Pearl Male

A female's tail will molt back the same color with each molt.

A male will molt all the patterned feathers and they will each grow back in a solid, dark color.

Courtesy of Emily Rose Tait

The 1st molt can start as early as 4-6 months.

A female will always molt back in the spots on the Primary flight feathers

A male will molt out the spotted feathers and they will be replaced with solid color feathers

Young Male

Copyright 1994-2014 Susanne Russo

Many young birds will break their tail feathers or damage or break a flight feather

If the bird is 4 months or older the feather can be plucked/pulled out. As the new feather emerges the sex of the bird can be determined

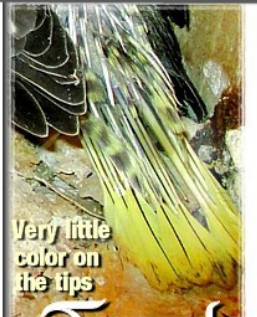
Sexing Pearls

There are 2 ways
you can determine the sex

1

Sex Linked pair

1...If you know the mutation of the parents sometimes you can tell the sex as soon as the chick hatches. OR when it feathers



Male

The 2 center feathers will have a lot of dark color

Pearl split to Cinnamon

2...Over the years I have observed that I could determine the sex, with a 95% success rate by looking at the tips of the tail

Female
Tips of the tail can be clear or have a little color

2 If you look at the tips of the center tail feathers the males will be darker and more color going up the length

Courtesy of Susanne Russo 1994-2014



Female



SEXING Pearls

This mutation can't be wing spot sexed when young, with the exception of 'Incomplete Pearl' The male will have very faded or no wing spots

I have observed a difference in the coloration of the tips of the tails



Male



Female



This applies to young birds



Male



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SEXING A YOUNG PIED

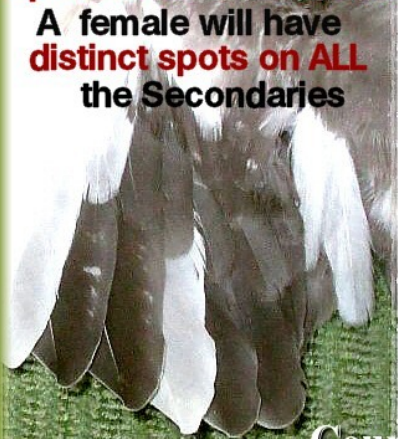
Where do I look?



Young Male

A male might have faded spots on a **FEW** feathers

A female will have **distinct spots on ALL** the Secondaries



Look at the Secondary flight feathers



Young Male



7 week old fledgling



No spots

Courtesy of Susanne Russo 1994-2014



Female

Spots close to the body

Sexing Young Pies

Ask what age the Pied is to help to determine its sex

Note: If the female is over 1 year old she will molt out the spots and this area will be solid color

Use the 'Secondary' flight feathers only



Male

no spots

close to the body

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Sexing Normal Grey

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Russo



With Experience and a Discerning Eye sex can be determined before the 1st molt



If you look at a known male and female side by side it will be seen that there is a difference in the overall coloration between the sexes. Many females will have a very slight brown wash



When young the females are broader through the shoulders



Young birds are
Courtesy of Karen Morris



Cheek Patch Sexing
What do I look for?
Is this a valid method to sex?



SIMULATION
Same exact Orange



4 weeks old

Grey Streaks



Note: I've only studied the Normal so far. This method would be applicable for young birds, prior to the 1st molt.

Young birds

The bright or dullness of the cheek patch is an OPTICAL ILLUSION created by the color of the streaking prior to molt.



Grey Streaks = Female

Yellow Streaks = Male

Note: The streaks are seen when 1st fully feathered. The hens' cheek appear dull because of the grey streaks.



Grey Streaks = Female

Yellow Streaks = Male



Courtesy of Susanne Russo 1994-2014



Cheek Patch Sexing?

Psst, really?...get out of town, Bull** are the most common reactions**

Before DNA, bird people used a variety of methods to sex a bird. Presented is one of them. If skeptical, try it on some birds that you do know the sex of 1st, to what to look for.

Note: I have observed that if the female is split to Whiteface she will have yellow streaking

May
2014



From the wing I concluded this bird was a male when it was young.



Yellow streaking



For years, like many, I had discredited and openly scoffed sexing by cheek patches.



Wing spot sexing is also a very controversial topic. I believe because of not knowing specifically what to look for.



Yellow streaks indicate a male



Yellow streaks indicate a male



Yellow streaks indicate a male



Yellow streaks indicate a male



Yellow streaks indicate a male



Cheek Patch Sexing of Young Pieds



Female

There are grey streaks going horizontally across the patch



Male

There are yellow streaks going horizontally across the patch

Courtesy of Susanne Russo 1994-2014

Cheek Patch Sexing

What do I look for?

Is this a valid method to sex?



SIMULATION

Same exact Orange



4 weeks old



Grey Streaks



Note: I've only studied the Normal so far

This method would be applicable for young birds, prior to the 1st molt

The bright or dullness of the cheek patch is an **OPTICAL ILLUSION** created by the color of the streaking prior to molt

Young birds



Note: The streaks are seen when 1st fully feathered

The hens cheek appear dull because of the grey streaks



Grey Streaks = Female

Yellow Streaks = Male



Courtesy of Susanne Russo 1994-2014

What sex is it?



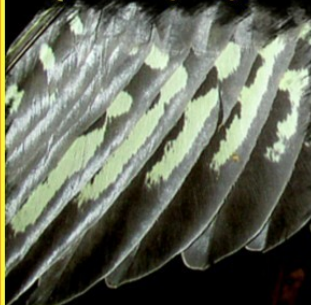
Young
Under
4 months

Copyright 1994-2014 Susanne Russo



Grey Streaks = Female
Yellow Streaks = Male

Primary flights



Secondary flights



Over 9-12 months

A female will **KEEP** the spots and a male will have **SOLID** color flights after the molt

Both Sexes



Use **ONLY** the 'Secondary flights feather for sexing

Using a Pendulum to Sex

HOW does this work?

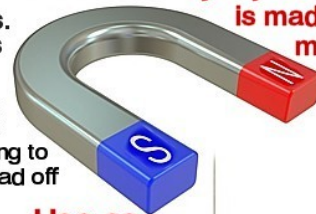
There are magnetite-based receptors in the beak of birds. Magnetite is a mineral. Magnetite grains are common in living things

The following is from Bee Thor:

We use the washer test. It is not 100% accurate but about 90%. I feel that the accuracy level goes up as the cockatiel is older. It may read it wrong on a 2-3 week old baby and we will usually test it a few times. What you do is tie a string to a metal washer and hold it over the baby, try not to hold the baby as it may read off you, but on like a table top, or in an open box with some bedding, etc.

If it swings back and forth it's a boy and if it goes in a circle it's a girl. I've also heard you can use a paperclip as well if you don't have a washer. Make sure you test it long enough as sometimes, it may start to swing in a circle and may actually go back and forth or vice versa.

Make sure any object used is made of metal



Use as the cord



Circular Motion
FEMALE

Back and Forth - MALE

Hover over the head for best results



Baby courtesy of Karen Morris

Hover over the upper back



Presented by Susanne Flusso, 1994-2014

You might read or hear someone say: 'If the spots go the length of the wing, female and halfway male'

The underside of the wing has 3 groups of feathers... Coverts, Primary and Secondary

If the spots are on BOTH the primary and secondary feathers, it's a YOUNG female. If the spots are just on the primary feathers ONLY, then it's young male OR an adult hen

NOTE: The exception to this is when young, both sexes may have very faded spots on the secondary feathers. After the 1st molt some traces of the spots may be seen on both sexes



Spots on the Primary AND Secondary

Wing Spot Sexing

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For a Young Cockatiel



Coverts

Primary

Young Male
OR
Adult Female
Secondary

Faint spots might be there after the first molt

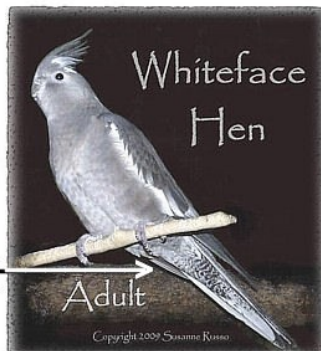


Faded Spots
Young Both Sexes



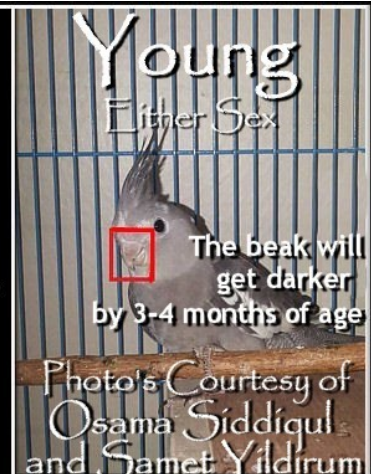


Normal Whiteface



Sometime you might buy a bird and the seller does not know the age.

If you look at the bird there several clues that can help to determine APPROX. age



Young bird molting out the barring on the body



NOTE: ALL birds when young will look like females

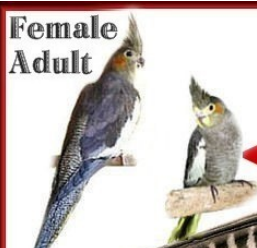
IF you know what to look for you may also be able to determine age

Look at the Eyes

Recently weaned Round to 4-6 mo.



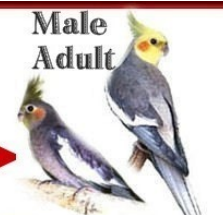
Female Adult



SEXING

When young both sexes look alike

Male Adult



Young



Adult



Young



Adult



Either Sex

Young, PRIOR to the first molt



At first glance this looks like a female because the spots/dots are going all the way to the body. BUT, if the spots are faded or diluted looking this can be a Male, OR Female

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Wing spot sexing can be used to determine if the bird is young or old
Looking at the eye shape can also help with determining age if it is unknown

<p>Baby prior to weaning</p>	<p>Either Sex Young, prior to the first molt</p> <p>At first glance this looks like a female because the spots/dots are going all the way to the body. BUT, if the spots are faded or diluted looking this can be a Male, OR Female</p> <p>Copyright 1994-2014 Susanne Russo</p>	<p>Baby prior to weaning</p>				
<p>weaned to 6 months</p> <p>eyes are oval shape</p>		<p>weaned to 6 months</p>				
<p>Adult Female</p>	<p>SEXING When young both sexes look alike</p> <table border="1"> <tr> <td> <p>Female Adult</p> <p>The spots will be present on the ENTIRE length of the wing</p> </td> <td> <p>Male Adult</p> <p>The feathers closest to the body will have NO spots or faded spots</p> </td> </tr> <tr> <td> <p>Young Adult</p> <p>Once the hen has molted and is a year or older she will molt out the spots in the area</p> </td> <td> <p>Young Adult</p> <p>The wing flight may have no spots</p> </td> </tr> </table>	<p>Female Adult</p> <p>The spots will be present on the ENTIRE length of the wing</p>	<p>Male Adult</p> <p>The feathers closest to the body will have NO spots or faded spots</p>	<p>Young Adult</p> <p>Once the hen has molted and is a year or older she will molt out the spots in the area</p>	<p>Young Adult</p> <p>The wing flight may have no spots</p>	<p>Adult Male</p>
<p>Female Adult</p> <p>The spots will be present on the ENTIRE length of the wing</p>	<p>Male Adult</p> <p>The feathers closest to the body will have NO spots or faded spots</p>					
<p>Young Adult</p> <p>Once the hen has molted and is a year or older she will molt out the spots in the area</p>	<p>Young Adult</p> <p>The wing flight may have no spots</p>					



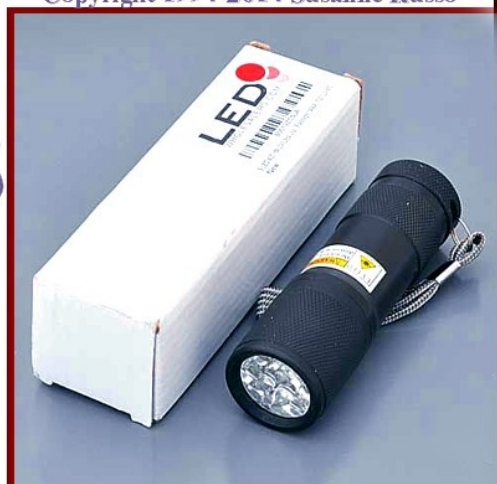
Black light (UV-A light, Ultraviolet light)



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A black light is a handy tool for Sexing and mutation ID of the Lutino (if it is Plain, Pearl or Pied) and Whiteface Lutino (Albino)



FEMALE

SEXING PIED

MALE

Barred
Feathers

BOTH male and female may have a combination of barred, clear and solid colored tailfeathers so you can't rely on this to sex the bird
With pied I first look at the body barring if over 6 months

Solid
Feather

Photo Courtesy of
Citra Jade Overgaard

FEMALE

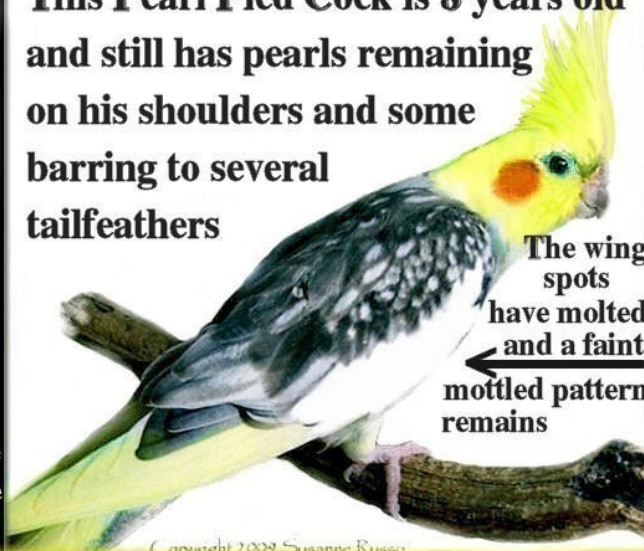
Photo Courtesy of
Amazilia Martin

NOTE

Male and Female will have barred and unbarred tailfeathers

TIP: Rather than look at the tail look at the barring above the vent and lower back

This Pearl Pied Cock is 8 years old and still has pearls remaining on his shoulders and some barring to several tailfeathers



The wing spots have molted and a faint mottled pattern remains

If a Pearl Pied, the female will keep the wing spots and pearl pattern and the male slowly molts them out over several years



Copyright 2009 Susanne Russo

A male will molt in a full yellow facial mask

The molt is done slowly, one feather at a time



If male, when young there will be either faded or no spots in this area of the wing

ALL solid color mutations will have the coloration of a female. These mutations are Sexually Dimorphic. This means that as the bird matures and with the first molts its sex can be determined

SEXING

When young all cockatiels have the female coloration

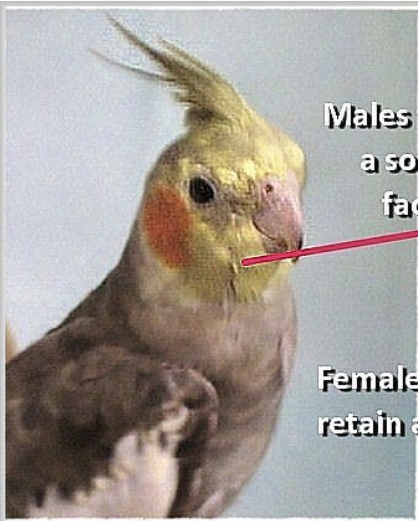
Copyright 2014 Susanne Russo

The body barring will molt into a solid color

The barred feathers will molt back in a solid dark color



Photos courtesy of Turhan Haluk Pekcan



Males will molt in a solid yellow facial mask

Females will retain a solid facial mask



The males will molt out the barred tail feathers to a solid color, which is very dark on the underside

Young male molting



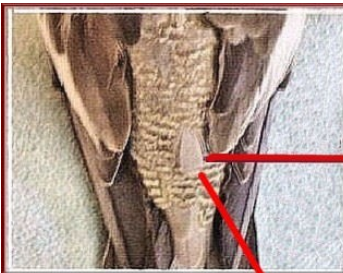
Solid feathers will replace the spotted ones

The solid color mutations can be sexed as they molt. The females will stay the same and the males will start to molt as shown.

Normal Grey, Lutino, Cinnamon, Fallow, Emerald, Recessive Silver, Whiteface, Yellow Cheek, Pastelface and Dominant Silver



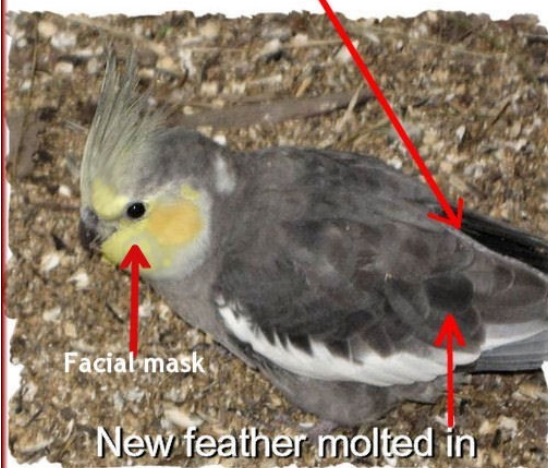
Solid will replace the barred feathers



Solid color birds are Sexually Dimorphic

Body barring will molt out and become a solid grey

Look at his back to see if it is solid grey or still as some barred feathers



Facial mask

New feather molted in



New solid/dark feather

Courtesy of Sue Nance

As the bird molts look for visual clues to the sex

Sexing Pied

Lutino Pearl
Pied
split to
Whiteface

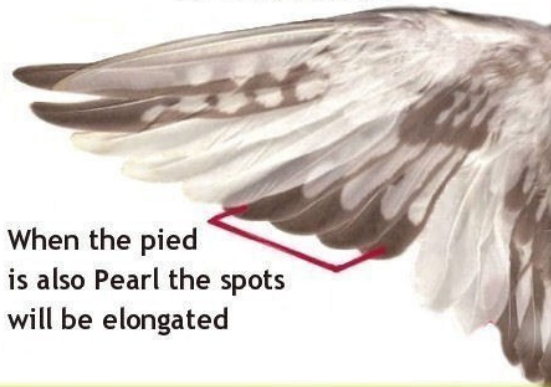
When Pied is combined with a sex-linked (SL) mutation then the babies can be sexed. Not only by color but the SL areas on the bird are dimorphic



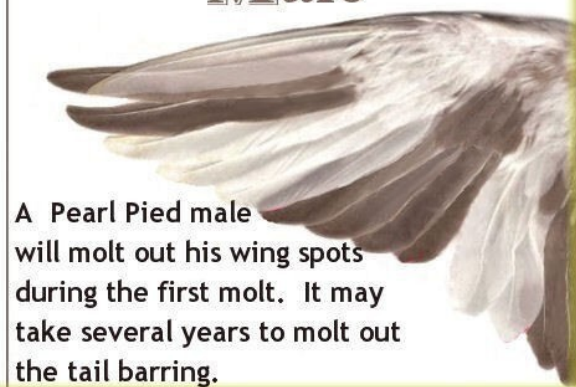
Many times the sex of the babies can be visually determined as the babies feather out

Clear Pied
split to
Cinnamon,
Pearl
and Whiteface

Female



Male

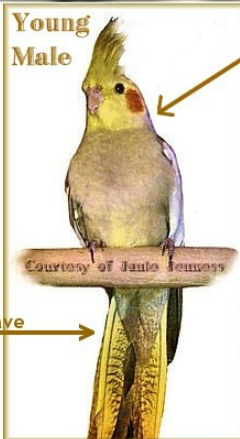
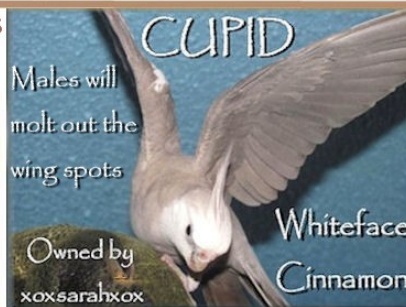


SEXING

When young all cockatiels will have the coloration of the female

Females will remain the same color with each molt

Cinnamon
Hen
(Female)



ONLY the males will molt/change their coloration

Cinnamon
Cock
(Male)



Pastelface Single Factor Dominant Silver (PF-SFDS)

NO
Trespassing

Jericho

Courtesy of Ann Graff

This bird is a Male

How you can tell is he has
no spot on the flight feathers
on the underside of his wings

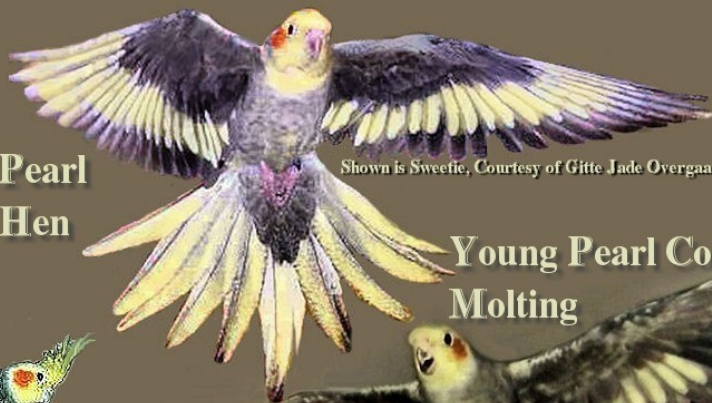
PEARL ~ SEXING

The Pearl mutation is dimorphic. Both sexes will look alike when young

Like the normal grey, the Pearl cock will molt out the pearl pattern and look like a normal grey



Pearl
Hen

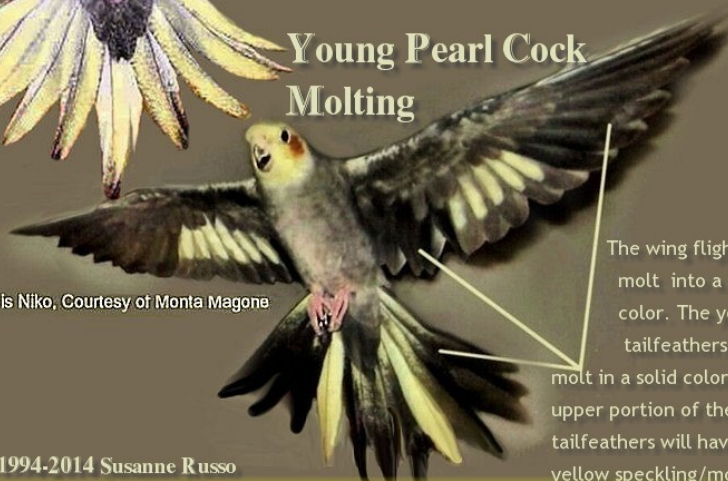


Young Pearl Cock
Molting



Adult
Pearl
Cock

Shown is Niko, Courtesy of Monta Magone



The wing flights will
molt into a solid
color. The yellow
tailfeathers will
molt in a solid color. The
upper portion of the center
tailfeathers will have some
yellow speckling/mottling

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SEXING a Pearl Pied



Pied is a Anti-Dimorphic (ADM) Mutation

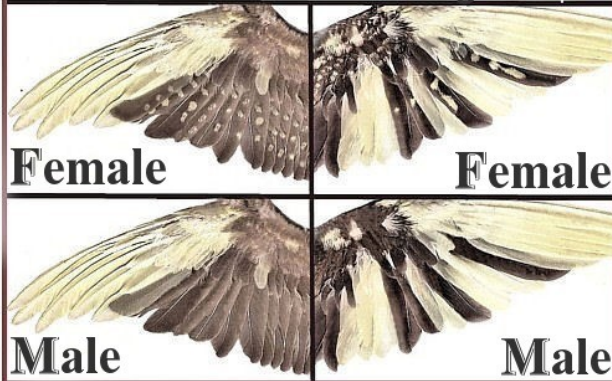
Meaning, there are no visual differences between the sexes

But, there is an Exception to this rule

Pearl is a Sex-Linked (SL) Mutation

The Pearl mutation IS Dimorphic

Comparison of wings BEFORE and AFTER molting



Female

Female

Male

Male

A female will retain the wing spots
A male will molt them out



Young, both
sexes look
the same
OR
Adult Female



Adult Male



SEXING

The Solid color and Pearl variations are Sexually Dimorphic. Pied is Anti-Dimorphic, meaning that there are no visual differences between the females and males.

The first molt occurs between 5-9 months of age. The female will retain the same coloration. The male will molt out the barring to the tail feathers and the spots to the wing flights.

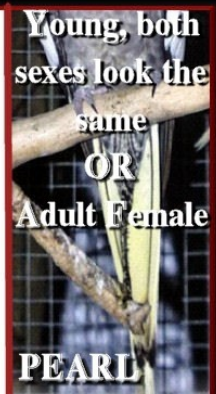


Pearls of both sexes will have the pearl pattern on their back. The females will retain the pattern and the males will molt the pearl pattern out and later look like a Normal Grey

Many Pied and Pearl Pied males can retain the barring to their tail feathers for several years, and the pearl pattern to the shoulders

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Young, both
sexes look the
same
OR
Adult Female



PEARL

Young Male
MOLTING



PEARL

Lutino

When young BOTH sexes will the coloration of the female →

Cock
Yellow
Facial
mask
(Adult)

NOTE:
A Lutino Pied
will not show
a facial mask

The Lutino mutation is devoid of melanin, which is the dark pigments. The lack of melanin also affects the eyes, which will appear red from the blood vessels showing within the eye. The beak and feet will be flesh colored, and the toenails are clear.

Lipochrome provides the yellow and orange pigments.

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Hen

Wing Spot Sexing

With young bird this may not be totally accurate, but it IS 100% accurate with solid color mutations that have gone through the first molt

Adult Male

ALL the spots are molted by 9-12 months of age

Young Female

The spots are on the flights of the entire length of the wing

may not have spots ← Young Male or Adult Female

Spots of a young male

NOTE
A hen will molt the spots to the lower flights at 9-12 months of age

Yellow Barring underside of tail

Young Female

The spots will be seen on the entire length of the wing

Young Male
or
Adult Female

Spots of a young male

Note: Once the hen has molted and 9-12 months old she will molt out the spots closest to the body

Lutino Wing Spot Sexing

Many times when a cockatiel is young you can determine the sex by looking at the underside of the wing

A female will have spots/dots that are dispersed along the entire length of the wing

By the time the female is a year old she will have molted out the spots closest to the body.

This helps to determine if the female is young or over a year old

Adult
Male

ALL the spots are molted by 9-12 months of age

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Lutino Pied Male

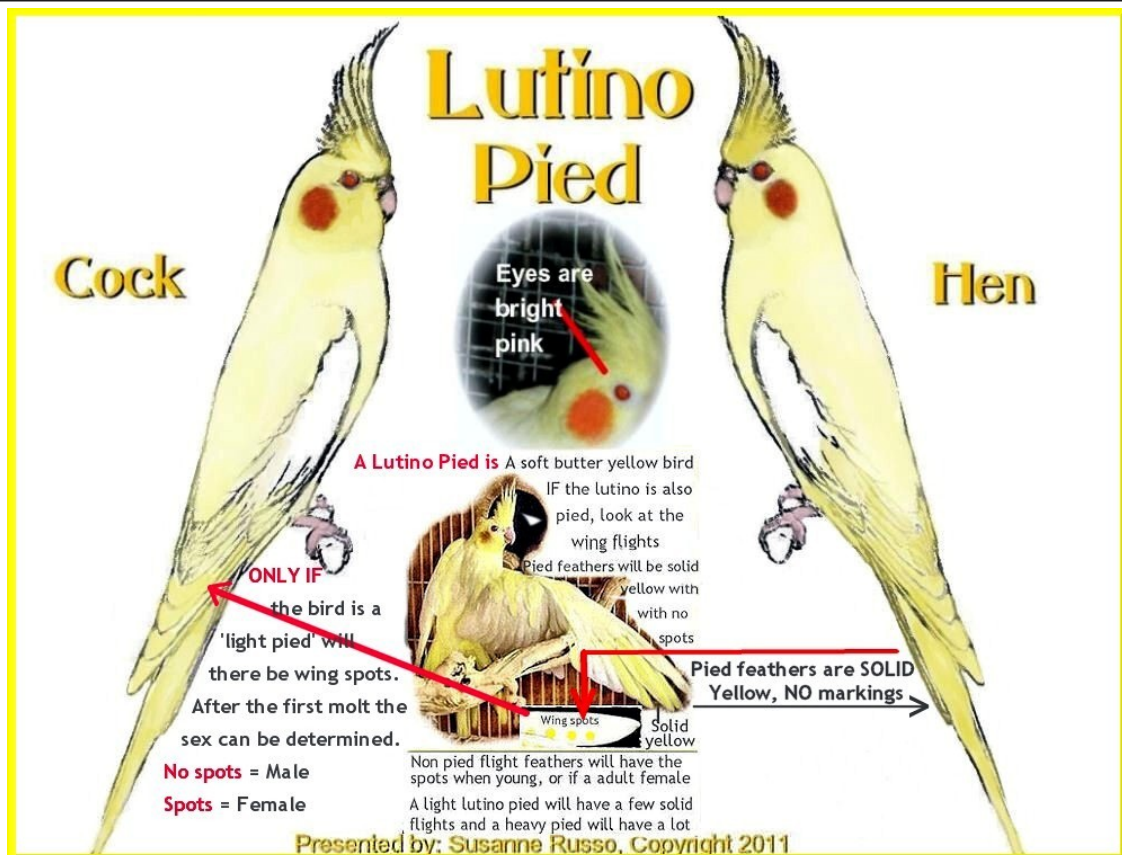


Courtesy of Claire Jones

Any **SOLID** Yellow feathers
are Pied feathers
They will **ALWAY** molt back the same



The non pied feathers can be looked at
to determine sex. A female will always
keep the wing spots and tail barring.
The male will molt them out.



Normal

Wild type coloration is derived from two pigments:

Melanin: Provides the grey color in normal cockatiels. It is also present in the eyes, beak and feet

Lipochrome: Provides the yellow on the face and tail and orange seen in the cheek patch.

Hen



Cock



All mutations are a variation of the normal grey

When young both sexes will look like the female (Hen). If male (cock) the spots to the wing flights and barring on the tail will molt out into a solid color by the time he is approx. a year old. The cock will molt in a yellow facial mask, and the hens face will not change.



Adult Hen

Adult Cock

Presented by: Susanne Russo Copyright 2011

Tail of a Young Pearl Cockatiel. (Male)

The center veins of the tail feather will be dark, and there will be either barring or mottling on the feather.

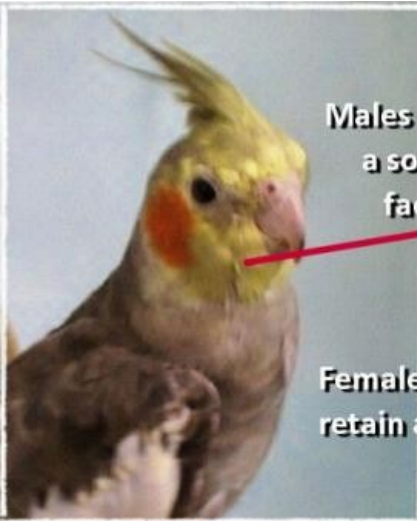
Males will molt in solid dark feathers and females will keep the same pattern

with each molt. **NOTE:** The center tailfeathers will have grey females will not have the grey



Copyright 2009

Susanne Russo



Males will molt in a solid yellow facial mask



Females will retain a solid facial mask



The males will molt out the barred tail feathers to a solid color, which is very dark on the underside

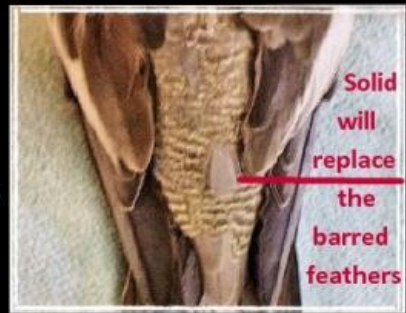
Young male molting



Solid feathers will replace the spotted ones

The solid color mutations can be sexed as they molt. The females will stay the same and the males will start to molt as shown.

Normal Grey, Lutino, Cinnamon, Fallow, Emerald, Recessive Silver, Whiteface, Yellow Cheek, Pastelface and Dominant Silver



Solid will replace the barred feathers

FEMALE



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A female will have very little to no grey on the tips of the 2 center tailfeathers.

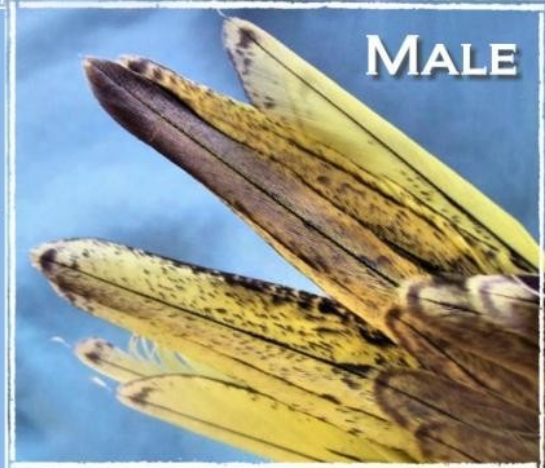
A male will have grey on the tips of the center 2 tailfeathers, going 1/4-1/2 way up the length.

NOTE: The barring and mottling of the tailfeathers has nothing to do with sex and varies per bird.

PEARL

Sometimes you can tell the sex of a pearl by looking at 2 center feathers of the tail when young, and feathering out

MALE



Genetics 101

SEX LINKED PAIR

The sex link mutations are: Cinnamon, Lutino, and Pearl
With this pairing you can 'visually' sex the babies

FATHER (Cock)	MOTHER (Hen)
Cinnamon	Whiteface
split to	Pearl
Lutino,	split
Pearl	Pied
Whiteface	
Pied	

Sex-linked mutations are shared with the offspring of the opposite sex. In other words, fathers pass their visual color to the daughters, and mothers pass it to the sons. Hens will be visual, cocks inherit this as splits from each parent.

Courtesy of Sonia Garcia

Courtesy of Sonia Garcia

**Pied is one of the mutations where no 2 babies look alike
Splits increase the chances of more variety
and in some cases to visually sex the babies**

Pied


split to
Pearl,
Lutino,
Cinnamon
and Whiteface

- 1...Whiteface Lutino Pied - female**
- 2...Whiteface Clear Pied - either sex**
- 3, 4, 5...Pieds - either sex**
- 6...Normal Pearl - female**
- 7, 8...Cinnamon Pieds - females**






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Pied
split to
Whiteface

Different pairings may give similar results but, the sex of the babies may be different

<p>A Normal split to Lutino and Whiteface</p>  <p>B Normal split to Lutino, Pearl and Whiteface</p>	<p>Babies with cock A NOTE: Cock A was not split to Pearl, therefore less of a variety of mutation/colors, thus it is harder to visually sex the babies. 2... Whiteface Lutino - either sex 3... Normal Grey - either sex 6... Lutino - either sex</p>  <p>Copyright 1994-2014 Susanne Russo</p> <p>Babies with cock B 1... Normal Pearl - female 2... Whiteface Lutino - either sex 3... Normal Grey - either sex 4, 5... Lutino Pearl - females 6... Lutino - either sex</p>	 <p>Lutino split to Whiteface</p>
---	--	--

Visual to Visual pairing

<p>Lutino</p> 		 <p>Too much scalp showing</p>	
<p>The lutino babies can be either sex</p>  <p>split to Pearl female →</p> <p>Copyright 1994-2014 Susanne Russo</p>			

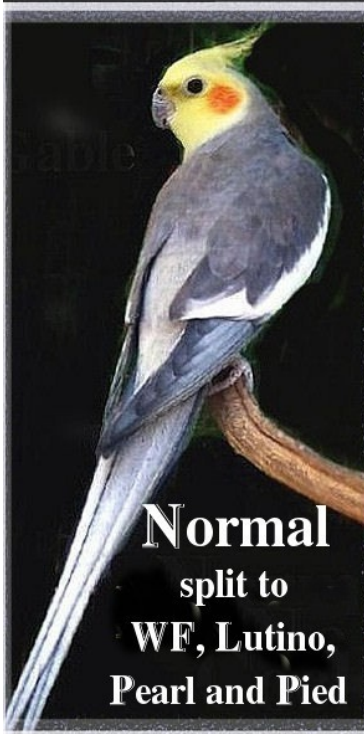
When pairing same mutation birds together faults such as balding are increased

When the lutino mutation was originally developed balding occurred and is a genetically inherited trait that is very difficult to breed out. One way to do this is to breed a split to lutino to a visual lutino. Select/use birds that have thick head feathering, especially behind the crest. I've found the pied mutation can contribute to decreasing baldness in lutino lines.

What can you learn from this pairing?

Sometimes there are surprises in the nest...Why??

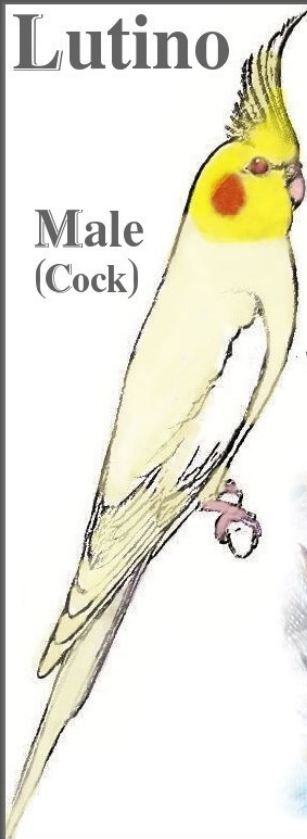
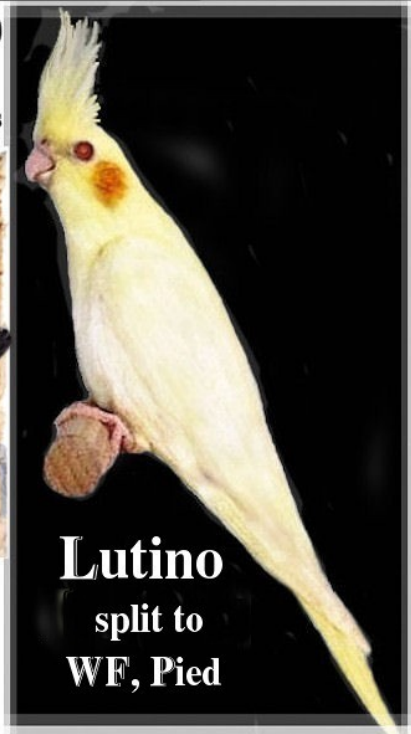
If you don't know the parents genetic background when the babies feather out you might wonder where did all these different colors/mutations come from



Many times a bird will carry a gene (split) but it may not be expressed until it is paired with a bird that has the same genes



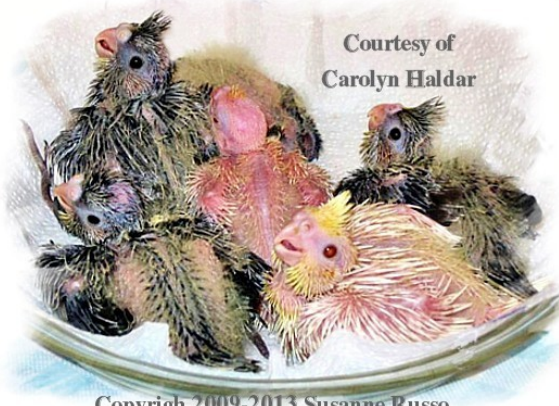
1, 2... Pearl - females
3, 4, 5... Normal Grey - either sex
6... Whiteface normal - either sex
7... Whiteface Lutino Pied - either sex



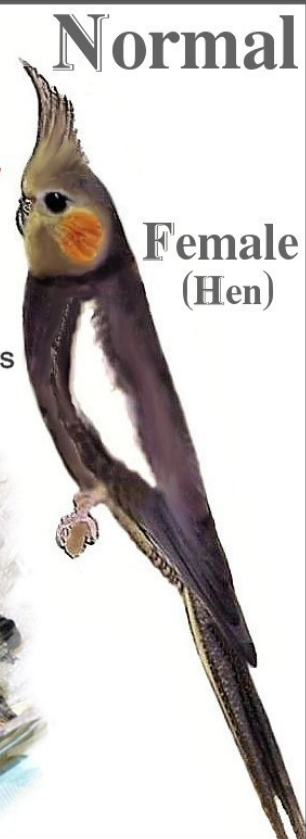
Sex Linked pairing

With this type of pairing it is easy to sex the babies

The ones colored like the father (if a sex linked mutation) will be females, and the normal greys will be males



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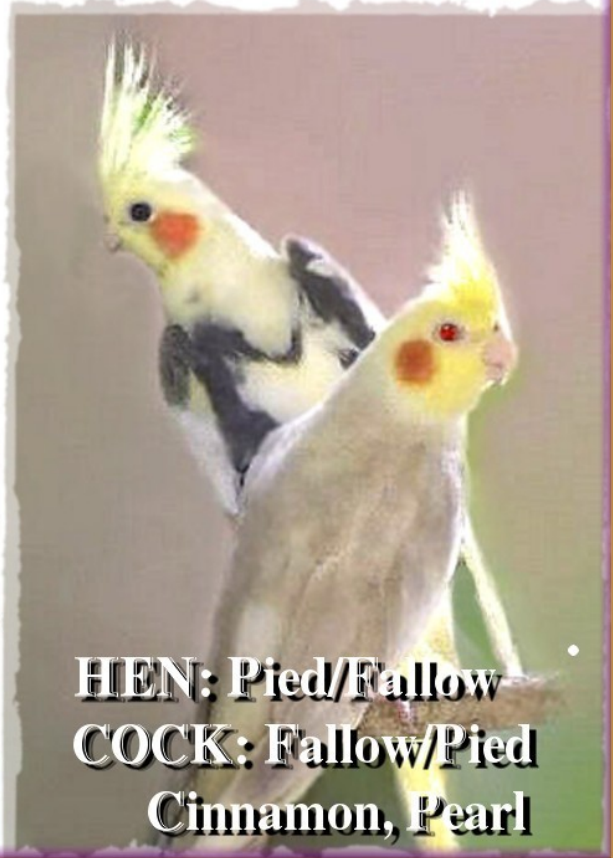


What is going on with the genetics of the pair?

If you look at the genetics of the cock, you will see that he is split to cinnamon

Cinnamon should NEVER be introduced/bred to the Fallow mutation

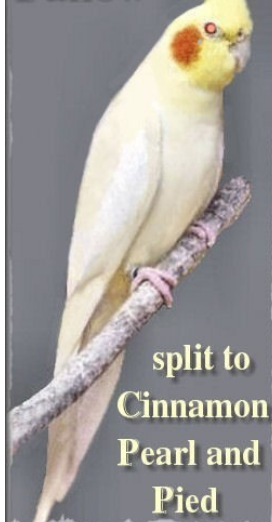
It will mask the Fallow coloration, and visually look like a Lutino



What Happened?

Both birds have red eyes, WHY are there no red eyed babies?
There are several red eyed mutations...thus a breeder must know how to identify each

Cinnamon Fallow



Cinnamon Fallow is the result of Cinnamon paired with Fallow. When this is done the Cinnamon masks the Fallow resulting in a bird that looks like a Lutino. Genetically it is not a Lutino and will not produced lutino babies.

- 1, 2... Pearl - females
- 3, 4... Normal Grey - either sex
- 5... Cinnamon Pearl -female
- 6... Pied - either sex

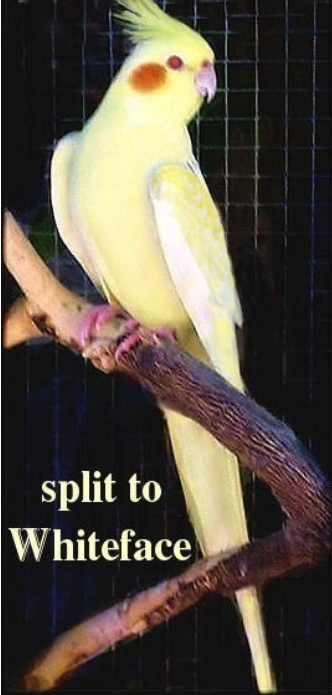


What Happened?

Why are there no lutino babies?

If you do not know your mutations then it is like playing Russian Roulette on what your pair gives you

Lutino Pearl Pied



split to
Whiteface

A male cockatiel can be split to all sex- linked and recessive mutations
A female can only be split to recessive mutations

In this example the babies can be sexed

1, 2, 3... Pearl Pied - either sex
When there are shared genes the babies can be either sex

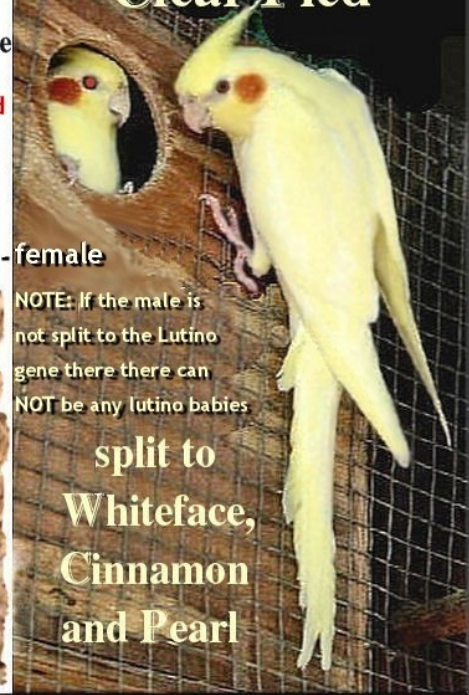
4... Cinnamon Pied - female

5... Whiteface Cinnamon Pearl Pied - female



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Clear Pied



NOTE: If the male is not split to the Lutino gene there there can NOT be any lutino babies

split to
Whiteface,
Cinnamon
and Pearl

What can you learn from this pairing?

Compatible/shared genes (splits) contribute to varity in the nest
As the babies feather out the sex can also be determined

Courtesy of Muhammad Riaz

Whiteface
Pied



split to
Cinnamon,
Lutino and
Pearl

- 1...** Whiteface Pied - either sex
- 2...** Whiteface Lutino Pied - either sex
- 3...** Whiteface Cinnamon Pearl Pied -female
- 4...** Whiteface Clear Pied - either sex
- 5...** Whiteface Pearl Pied - female
- 6...** Whiteface Pearl Pied - female



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Courtesy of Muhammad Riaz



Whiteface
Lutino
Pied

What Happened?

**Male
(Cock)**



**Pied
Recessive**

**Understanding Genetics
helps to pair up birds with
compatible genes**

When there is no shared genes
the offspring will revert back to
the Normal mutation, which is
the Dominant gene over all
Sex-Link and Recessive genes



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**Female
(Hen)**



**Lutino
Sex-Link**

Pied Pair

**What clues can you learn of the
parents genetic background
when looking at the babies?**

Both parents are split to Whiteface

The male is split to sex linked mutations,
Cinnamon and Pearl, thus the babies
showing this coloration are females.



**Female
(Hen)**



**Male
(Cock)**

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**Male
(Cock)**

Pearl Pairing

**Female
(Hen)**



Since both parents are Pearl we can expect 100% pearl babies in the nest

When other mutations are produced this tells us that the parents are carrying Splits

This info can be used to update Records

BOTH parents are split to Pied and Whiteface
The Male is split to Cinnamon



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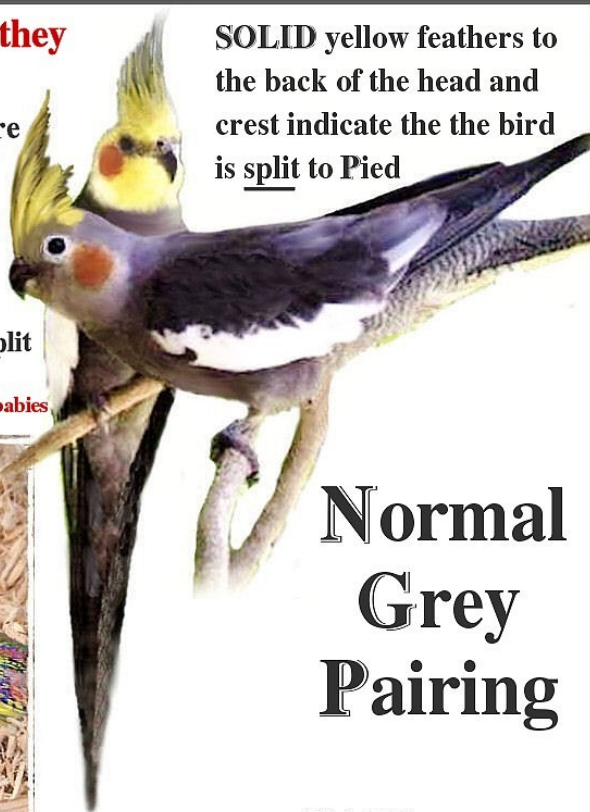
What you see may not be what they give you in the nest

What is happening when the babies are a different color than their parents?

Any mutation can be carrying genes (called Split) to other mutations

A male can be split to all sex-linked and recessive mutations. A female can only be split to recessive mutations

Understanding genetics helps to determine the sex of the babies



SOLID yellow feathers to the back of the head and crest indicate the the bird is split to Pied

Normal Grey Pairing

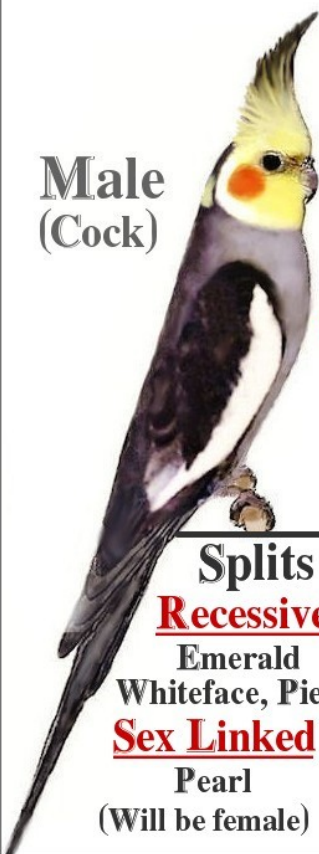
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Normal

Clues to the

Emerald

**Male
(Cock)**



genetic background of the
parents can be determined
by looking at the coloration
of the babies

**A male can be split to all sex- linked
and recessive mutations. A female can only
be split to recessive mutations**



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**Female
(Hen)**



**Splits
Recessive**

Emerald
Whiteface, Pied

Sex Linked

Pearl

(Will be female)

Splits

Recessive

Whiteface

Different pairings may give the same results but the sex of the babies may be different



**WF
split to
Cinnamon,
Pearl and Pied**

Babies with Hen A

- 1... Whiteface Pearl Pied - either sex
- 2... Whiteface Pied - either sex
- 3... Whiteface Clear Pied - either sex
- 4... Whiteface Cinn. Pearl Pied- either sex



Babies with Hen B

- 1... Whiteface Pearl Pied - female
- 2... Whiteface Pied - either sex
- 3... Whiteface Clear Pied - either sex
- 4... Whiteface Cinn. Pearl Pied - female



A

B

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When the splits are known

it is easier to identify the mutations and sexes in the nest

WF Clear Pied



split to Cinnamon
and Pearl

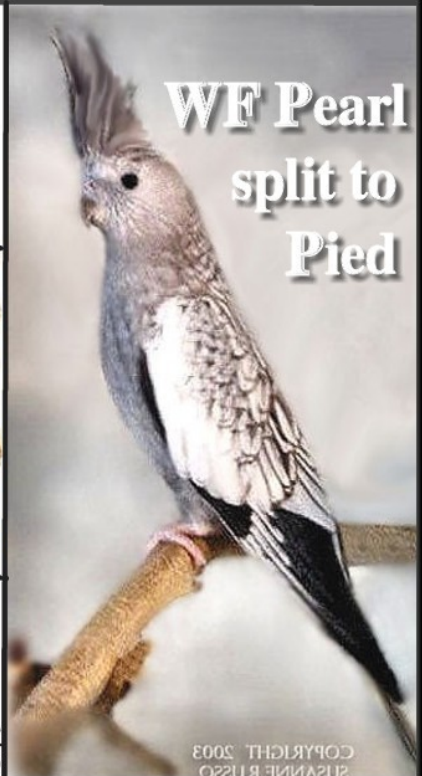
NOTE: The disadvantages of using a genetic calculator are if you don't know how to visually identify a mutation then you are not going to visually identify the mutations of the babies



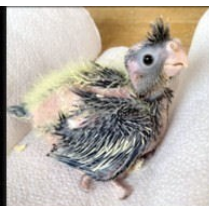
- 1...Whiteface Pearl Pied - either sex
- 2...Whiteface Pied - either sex
- 3...Whiteface Clear Pied - either sex
- 4...Whiteface Cinn. Pearl Pied - female

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WF Pearl split to Pied



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Big Bird



Pied



What Happened?

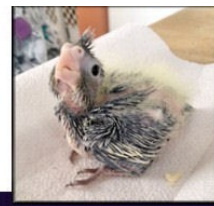
Why don't any of the babies look like the parents
When there is no shared genes the babies will be
normal greys



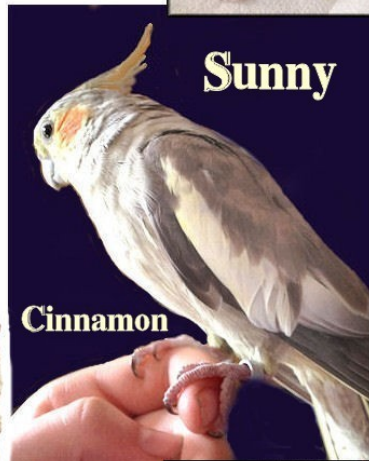
Same
clutch



Courtesy of Sharkz



Sunny



Cinnamon



Cockatiel Mutations

In the US we currently have 14 known mutations, in addition to the Normal Grey, which is not a mutation

Originally cockatiels were identified in the late 1700's in Australia, their native country.

The first mutation from the Normal Grey was Pied in 1949.

A Bounty of Color

NORMAL COCK



NORMAL HEN



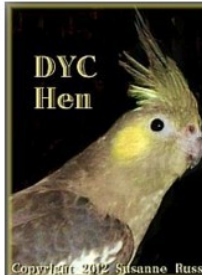
NORMAL HEN (BACK VIEW)



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Dominant Mutations

BYC Hen



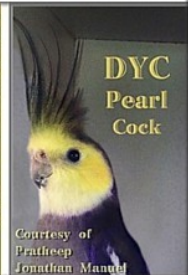
Copyright 2012 Susanne Russo

BYC CLEAR PIED



Copyright 2009 Susan Russo

BYC Pearl Cock



Courtesy of Pratheeep Jonathan Manu

Normal (SFDS)
Single Factor Dominant Silver
Coloration can vary with each bird



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Courtesy of Wendy Cameron LaBanc



Courtesy of Janelle O'Rourke



Courtesy of Wendy Cameron LaBanc



Pastelface

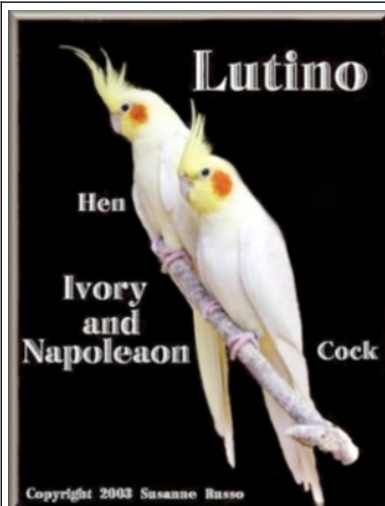
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Houdini

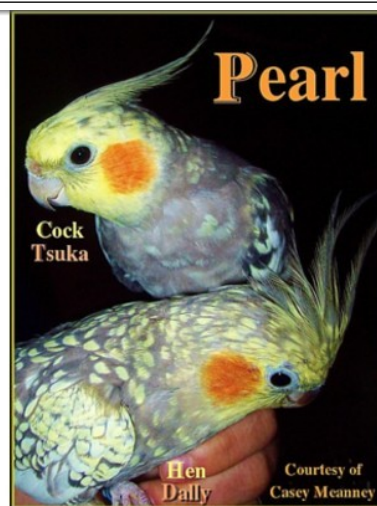


Pastelface Pied



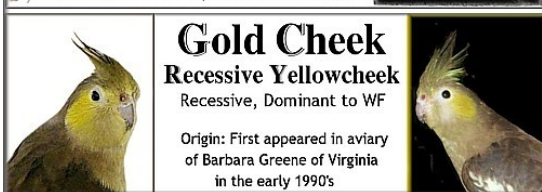
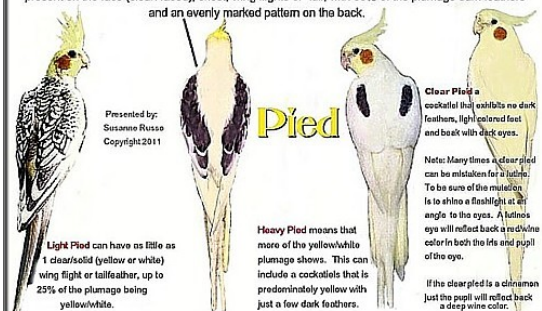


Sex Linked Mutations

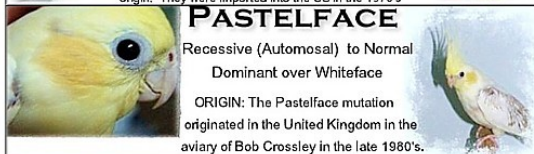


Pied is when the normal wild-type body colors are replaced with yellow to a pale off white in varying degrees. The most significant change to occur with the pied is the distribution of Melanin (grey or dark) pigmentation which is deposited randomly on select areas of the body. Combined with the distribution of the Lipochrome (yellow) on the body and crest, contributes to a variegated look to the plumage.

When breeding pied it is desirable to strive for a bird that is evenly marked with no dark feathers present on the face (clean faced), chest, wing flights or tail, with 50% of the plumage dark feathers and an evenly marked pattern on the back.



Recessive Mutations





What mutations NOT to breed together?

Cinnamon is a color that you do not want to breed with some of the other mutations, such as Emerald, Recessive Silver, Dominant Silver, and Fallow. Cinnamon is a diluting color and affects the visual plumage of these mutations. For example if cinnamon is bred into the Fallow, what happens is any visual fallows will look like lutinos.

You also do not want to pair up two of the same color mutations together...such as pied to pied, pearl to pearl, etc. it is best to pair a visual with a split.

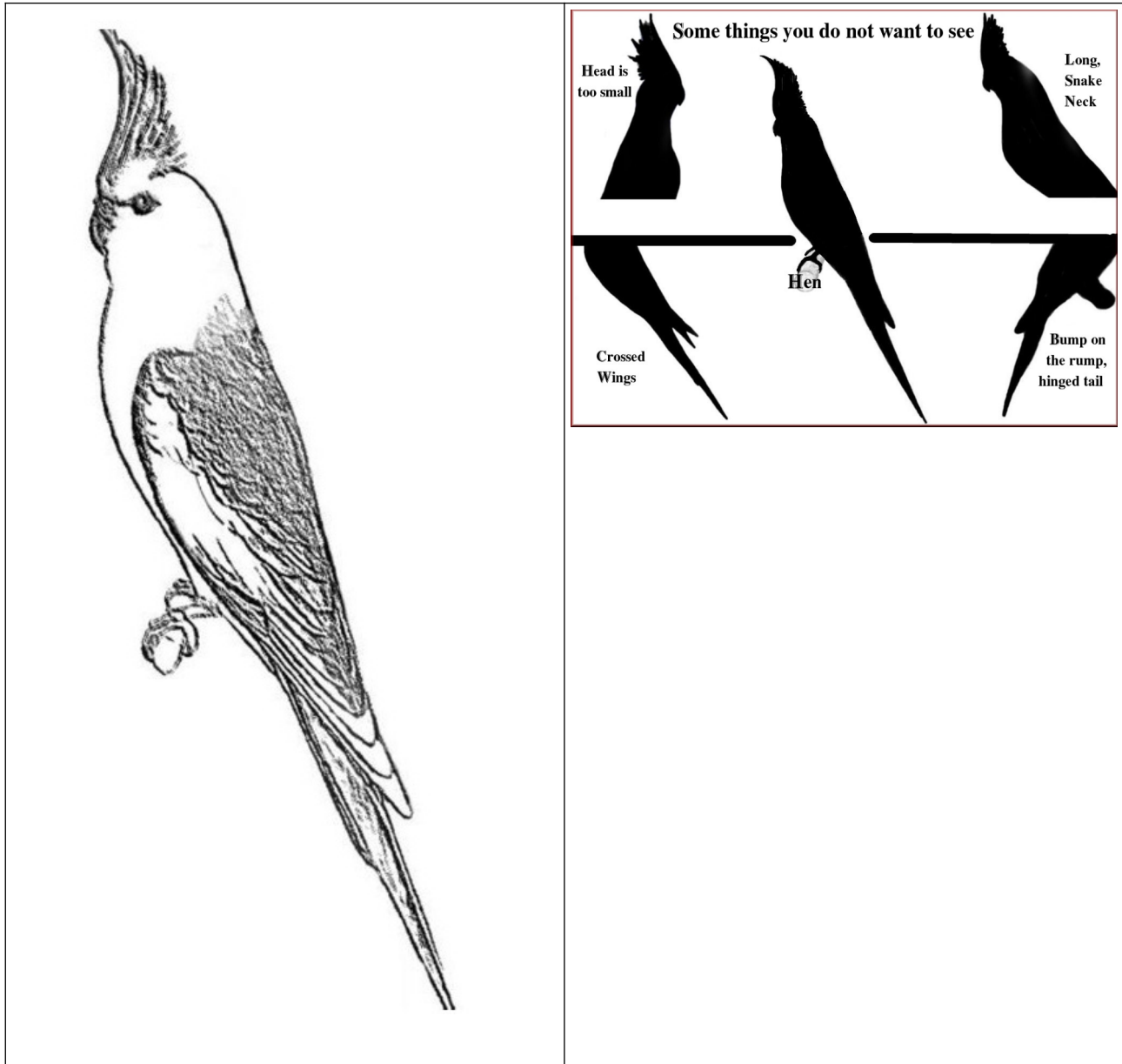
You would want to avoid breeding pearl into mutations such as lutino, Emerald, Dominant Silver, Recessive Silver, and Fallow because pearl when combined with these mutations tends to contribute to thinner feathering to behind the crest, and can enhance baldness in lines that the baldness has been worked out.

Also, when breeding there are other things to consider, such as confirmation (topline). You would like to breed for a bird that has a good topline (illus. below)...meaning when viewed from the side the profile looks like a straight line from the back of the head to the tip of the tail. You want wing tips that just touch together. You do not want to see wingtips that are misaligned with 1 wing held higher than the other, or crossed. You do not want to see a hinged tail...which is just a term where the tail bends down at the rump, breaking up the straight look to the topline.

You would like to breed for good quality to the tail feathers, such as working with birds that have long flexible tails that don't break or fray as they climb up the side of the cage.

Temperament is another inherited trait, so working with birds that have a laid back, mellow and friendly disposition is a plus.

So there are a lot of things to consider, aside from color.



Also, when breeding the goal should be to improve the next generation.

it is best to make sure there is NO WF in the background of any DYC or SLYC, because it alters the cheek patch making it irregular in shape, smaller, and allows the orange wash to bleed thru. The BEST pairing with any YC is to pair it with a normal orange cheek patched bird that has large and deep orange colored cheek patches.

Since DYC is a dominant mutation any offspring that do not have a visible YC can NOT be split to SLYC. In otherwords what you see is what you get.

On the other hand, with SLYC, if just the hen is SLYC, only the sons will inherit the split. If only the father is SLYC the daughter will be visual SLYC and the sons will be split to SLYC.

Pastelface (PF) is interesting to work with. If you only have 1 PF and no WF to pair it with, then pair it with a nice normal with large orange cheek patches. ALL the offspring will be split to PF. Then they can be paired with visual WF. But if you do have a PF and a WF paired up, you can tell what the chicks are in the nest. Anything with light yellow down is PF and white down is WF.

NOTE: You also do not want to mix the cheek patch mutations together (SLYC, DYC, PF) because it makes it harder to identify what the mutation is in future generations. The only way to confirm what mutation the cheek patched bird is is by test breeding.

Cheryl...I have to look for saved photos of a Recessive Silver SFDS...they are pretty. But health wise this combination would not have caused a higher mortality. About 10 years ago there were several breeders working with them. It is an iffy subject on breeding these mutations together. 10 years ago alot of the rare color mutations were being bought and shipped to China. The more exotic the mutation combinations the better the buyers wanted it. In the US the serious breeders do not want any other mutations mixed with the DS. For example during the craze for getting as many mutations into a bird DFDS was paired with Emeralds. Unfortunately since EM have similar traits to DS there were unethical breeders that sold SFDS as EM for the higher \$\$ overseas.

And today a breeder really has to know the distinctive traits of each of the rare mutations because a normal SFDS, after 1-2 molts will look exactly like an EM.

And as you pointed out you do not want to pair the SLYC or DYC together, or even mix PF with these mutations. An inexperienced breeder is going to think they have one mutation when in reality it is something else, and that is how the genetic pool gets screwed up, and just makes a mess for the next person to figure out, and work backwards to the true mutation.

I have a WF bird that might be split to RS and I'm looking at a PF DS cockatiel..would that be a bad idea? Im not sure if she is even split to it and I'm pretty sure the other bird isn't.

First you have to decide what your goal is for the mutations you want. Since only one bird is split to RS, then only 50% of the chicks will inherit the split. The split can be seen when they mature...the iris of the eye will lighten up to a lighter brown, and the pupil will reflect back wine colored. Is your DS a DF or a DF? If a DF then all the chicks will be SF. If a SF, then some of the chicks will be SF...BUT it will be hard to tell which because many times a SF can appear to be a normal, especially the females, so you would have to wait for the first molt to be sure if SF or normal.

Does this mean I cannot breed a cinnamon pearl male to a pearl female?

Your pairing would still be a pearl to pearl. You would prefer to breed a male split to pearl to a visual pearl. Same mutations (like 2 pearls) tend to not be an improvement for the next generation and you can go backwards in size, and also get a thinning to the feathering behind the crest in successive generations. And offspring of such pairings with mutations that are prone to baldness will increase the balding in the next generation.

To clarify the above. IF you know the mutation background of your pair that helps. For example if each of the birds parents were also visual pearl, then I would be reluctant to breed visual to visual. But, if one or both parent came from a split to visual pairing then it is fine to pair them together.

You will know if the pairing works or not. If a good pairing the babies, when weaned will be a slight improvement in size from their parents, and show no obvious faults. If the babies are smaller, show some faults, or there was losses in the nestbox, I would suggest that this pair might do better if they are split up and repaired with splits to the mutation.

I have PF listed as a dominant mutation. I need to correct that. PF is only dominant to WF. You do not get splits when paired with WF. BUT, if it is paired with a normal orange cheek patch bird all the offspring will be split to PF. The only reason I have found to pair a PF with a normal cheek patch bird is to improve future generations of PF cheek patches. If you pair a PF with a normal that has HUGE, round deep orange patches, you are creating splits that carry the larger and lighter round cheek patch which would show up in the next generation when paired with a WF.

Here is something else I learned over the years. In order to increase the whiteness to a brilliant white in WF pided....first start with ANY normal pied or any orange cheeked back bird that has a very bright deep yellow and pair with a WF Pied to produce offspring split to WF. What happens is the deeper the yellow in the normal the brighter and cleaner looking the white is in WF. If the yellow in the normal is dull and washed out looking, this carries over to WF as a dull not as true of a white color.

How sex-linked recessive genes work?

Lutino, pearl, cinnamon and sex-linked yellow cheek (SLYC) are sex-linked recessive genes that are passed from parent to offspring according to fairly complicated inheritance rules. With birds, the sex chromosomes are XX for males and XY for females, which is the opposite of the human pattern.

The sex-linked mutations are carried on the X chromosome and there's nothing on the Y to offset it. Females get their X chromosome from their father, and if there's a sex-linked mutation on that X they have to be visual for the color. This is because this gene will not be paired up with a gene on the Y chromosome; it will stand alone so there's nothing that can interfere with it. Females can't be split for a sex-linked mutation. If they have the gene they will be visual, and if they aren't visual then they don't have the gene.

The inheritance rules are different for males since they get one X chromosome from each parent, and a mutation gene on one X will be paired up with a gene on the other X. The sex-linked mutations are recessive so males have to get the gene from both parents in order to be visual. If they only get the gene from one parent they will be split (carry the gene without being visual) and can pass the gene along to their own offspring.

The designations X1 and X2 are used to indicate the X chromosome that a male got from his father and mother, respectively. When you're using the genetic calculators it doesn't really matter which parent the gene came from, but what does matter is to arrange the genes correctly while you're setting the male's characteristics. If he got the cinnamon gene from his father and the pearl gene from his mother, you'll get very different results than if he got cinnamon pearl from one parent and nothing from the other. In the first case the genes are on different X's and in the second case they're on the same X.

When a male is split to two or more sex-linked recessive genes it is possible to have crossovers. This means that two genes that were on different X's in the father end up on the same X in the

offspring, or vice versa. Females don't have crossovers since they only have one X, and the sex-linked mutations on it don't have anywhere else to go.

A female that is visual for a sex-linked mutation will pass the gene to all of her sons since they get her X chromosome which has her sex-linked mutations on it. But she will not pass the gene to any of her daughters because they get her Y chromosome which does not carry color mutation genes. A male gives one of his X chromosomes to all his offspring so he can pass his sex-linked genes to both his sons and his daughters.

Here's a quick and simple way to remember how it works: to get a male who is visual for a sex-linked mutation you must have a mother who is visual for that mutation. If you have a baby with a sex-linked mutation and the mother is NOT visual for that mutation, the baby has to be female. If the mother IS visual for that mutation then the baby can be either male or female.

The father has to be either visual or split to a sex-linked mutation in order to get any babies who are visual for that mutation. If the father doesn't have the gene then you can't get any visual babies no matter what color the mother is.

Whiteface and pied are not sex-linked so they follow the normal rules for recessive genes: the baby has to receive one copy of the gene from each parent in order to be visual, and both males and females can be split.

Here are some examples showing the results for different parent combinations. The examples use Punnett square diagrams which are a standard method for displaying genetic outcomes. There is a row for each of the mother's sex chromosomes and a column for each of the father's sex chromosomes, and each intersection of a row and column shows the characteristics of the offspring who received these chromosomes. In these examples, a red X indicates a chromosome carrying a color mutation gene and a black X or Y indicates a chromosome with no color mutation genes. The image display looks a bit fuzzy on the forum, so below each image is a link to the original which is clearer.



Normal grey male, no mutation genes



Normal grey female, no mutation genes









Grey male split to the mutation (he's carrying the gene)









Male or female who is visual for the mutation







Example 1: Father is split, mother is nonvisual

		 Father	
		X	X
 M o t h e r	X	X₁ X₂ Male Split 	X₁ X₂ Male No mutation gene 
	Y	X₁ Y Female Visual 	X₁ Y Female No mutation gene 







Example 2: Father is split, mother is visual

		 Father	
		X	X
 Mother	X	$X_1 X_2$ Male Visual 	$X_1 X_2$ Male Split 
	Y	$X_1 Y$ Female Visual 	$X_1 Y$ Female No mutation gene 





Example 3: Father is visual, mother is nonvisual

		 Father	
		X	X
 Mother	X	$X_1 X_2$ Male Split 	$X_1 X_2$ Male Split 
	Y	$X_1 Y$ Female Visual 	$X_1 Y$ Female Visual 

Example 4: Father is visual, mother is visual

		 Father	
		X	X
 Mother	X	$X_1 X_2$ Male Visual 	$X_1 X_2$ Male Visual 
	Y	$X_1 Y$ Female Visual 	$X_1 Y$ Female Visual 

Example 5: Father has no sex-linked genes, mother is visual

		Father	
		X	X
Mother	X	$X_1 X_2$ Male Split 	$X_1 X_2$ Male Split 
	Y	$X_1 Y$ Female No mutation gene 	$X_1 Y$ Female No mutation gene 

<http://www.littlefeatheredbuddies.com/info/breed-sexlinked.html>

Genetic Calculator

At present there are two online genetic calculators for cockatiels, which help the owners of breeding birds figure out what color mutations to expect in the babies. This post provides links to the calculators and descriptions of how to use them. The more information you have on the parents' genes, the more accurate your results will be.

The simplest genetic calculator is this one on the Cockatiel Color Palette website:

<http://www.kirstenmunson.com/cockatiels/blue.html> This calculator does not consider crossovers, which can affect the outcome if the father bird is split to two or more sex-linked mutations. But it uses common cockatiel terminology which makes the results easy to understand. This calculator is only for cockatiels so if you own other species you won't be able to use it for them.

To use this calculator, go to the website; install the flash plug-in if you need to; click "male", check the appropriate boxes for his genetic characteristics, and then click "set male". It can be a challenge to get the sex-linked splits right if you're not familiar with the concept. The X1 that you see on the calculator is normally used to indicate splits that the male received from his father and the X2 indicates splits that he received from his mother. It doesn't really matter which parent gave him the gene, but with a male who has more than one sex-linked split it's very important to know whether these splits are on the same X or on different X's and make your selections accordingly. When you check the box for a sex-linked split the calculator automatically assumes that it's on the X1. If this isn't where you want the split to be, you can check the round X2 button AFTER you have checked the square box next to the mutation's name. It doesn't work if you try to click the X2 button or X1 button without checking the square box first.

Now click "female", choose her characteristics, and click "set female". Hen's don't have those pesky sex-linked splits so her setup is less complicated.

Now click "breed" and the calculator will display the results. You can not highlight the text to copy it, but clicking the "copy text" button does the job for you. If you want to do a new calculation, hit the "start over" button.

The more complicated calculator is on the GenCalc website at http://www.gencalc.com/gen/eng_genc.php?sp=0Cock This calculator does take crossovers into account.

This calculator uses more complicated terminology than the other one. "1.0" means male and "0.1" means female. It also has calculators for many other species (click the "back to intro page" button on the website to access them) so it uses general-purpose mutation names instead of cockatiel-specific mutation names, which can be confusing.

This calculator shows both parents on the same page so selecting their genetic characteristics is simple and straightforward. You'll have to be careful when selecting the male's X1 and X2 splits, as explained earlier in the post. When you're done clicking on the traits, hit Generate to produce your results. If you want to copy them you'll have to highlight the text and execute the copy and paste commands. If you want to do another calculation, hit Back to return to the previous page and Reset to clear the data from the last calculation.

Plucking parents and plucking birds

From postings on the forum and my past birds many times it is the hen that initially plucks the babies and I have often wondered why. I do know that the pinfeathers contain blood which has trace amounts of sodium/salt that would satisfy a deficient parent. Then I started thinking, how could a hen get deficient? Easy, trace amounts of sodium is in many of the foods that we give our birds to get them in breeding shape. When a hen lays she draws calcium from the bones. This calcium is delivered to the bones from the bloodstream of the hen. In addition to calcium, sodium and other trace minerals needed for laying are included in the shell. Sodium in the body helps with good muscle contraction to expel the eggs. Therefore a hen may become deficient of sodium during the egg laying process, and later plucks to replenish this deficiency.

For those that have plucking parents, you may want to provide the Trace Mineral Dust when you setup your pairs. It can be sprinkled on soft foods, greens/veggies, and/or in a small treat cup.

I believe in supplying what a parent bird needs will resolve the plucking of the babies during the pinfeather stage. It will not resolve plucking of fully feathered babies that are close to fledgling age. This type of plucking is a result of the parents wanting the babies to fledged from the box, and start another clutch.

The Trace Mineral Powder might also help adult birds that are pluckers. And also birds that have digestive problems and polyuria. Years ago I used to use trace mineral powder for babies that had slow crop problems. Both the trace sodium and iron aided in digestion.

Hormone control, and dealing with unwanted/unexpected egg laying

Cockatiels are opportunistic breeders, and the level of breeding hormones will rise and fall for both males and females according to whether current conditions seem favorable or unfavorable for breeding. This will happen even if the bird doesn't have a mate. But we have a lot of control over our birds' environment, and can manipulate the situation to help control their hormone levels. These techniques work on most cockatiels. This article deals with hormone reduction to reduce or

eliminate unwanted breeding behavior, but people who want their birds to breed can stimulate breeding behavior by doing the opposite of what it says here.

Why control hormone levels?

A female with a high level of breeding hormones may start laying eggs. If she has been mating with a male it's likely that the eggs will be fertile, which can be a big problem for owners who don't want to take on the heavy responsibility of breeding. If she hasn't been mating with a male the eggs will definitely be infertile, and egg production will place an unnecessary burden on her physical resources. An egg contains all the materials needed to build an eggshell and a complete baby bird, and every molecule of this comes from the hen's body. This nutrient drain occurs on a very fast schedule, too. Unlike a human mother who has 9 months to take in all the materials needed to make her baby, the average cockatiel hen will lay an egg every other day until she has a clutch of 4 to 6 eggs. It's obviously undesirable to put a hen through all this strain unless she has a sexually competent mate and you have an active desire to breed your birds. If the hen isn't healthy and well-nourished enough to lay normal eggs, she is at risk of dying from egg binding, egg yolk peritonitis, and other problems related to the egg-laying process.

Males obviously don't have to face the risks of egg laying. But high hormone levels can cause behavior problems, and your male will have a sweeter temperament and be easier to live with if his hormones aren't raging.

The time to start applying hormone reduction techniques is when you notice that your bird is getting hormonal.

What are the signs of hormonal behavior?

Aggression and territoriality, especially from males (usually related to the cage and/or an object that the bird perceives as a mate). Seeking out a location for a nest – semi-dark partly-enclosed areas are preferred since wild cockatiels nest in tree holes, but a corner in the bottom of the cage is also a popular location. Shredding paper or wood is nesting behavior, similar to a wild bird chewing up the interior and entryway of its nest hole to improve the site. Many males will sing and dance throughout the year and this is normal, but a big increase in this courtship behavior is a sign of rising hormones. Females may solicit sex by leaning forward to flatten out their back and vocalizing. Both sexes may engage in masturbation (if single) or copulation (if mated).

If you have a mated pair or a single female, it's best to take control of the situation promptly when you see signs that the hormone levels are rising. It takes time for the hormone levels to rise high enough for egg laying to begin, and there is still time to intervene even if you've seen sexual activity once or twice. But if you delay too long, the hormone level might rise to the "point of no return" where it will be impossible to prevent egg laying.

How to reduce hormone levels?

We reduce hormone levels by knowing the conditions that make hormone levels rise and doing the opposite. Some birds will respond to just one technique, others respond to a combination of techniques, and a few won't respond at all.

Manipulating the photoperiod, aka the long nights treatment.

This is by far the most effective technique, and in many cases will be the only one that's needed. The longer days of spring and summer are a major breeding trigger, since they provide favorable conditions for food plants to grow and extra daylight hours for the parent birds to collect food for the babies. It can seem like spring all the time in our homes, since we have electric "sunlight" when it's dark outside and pleasant indoor temperatures all year long. But we have the power to make it seem like night when it's actually light outside, and trick our birds' bodies into thinking that it's winter and therefore not a good time to breed.

To do this, we make sure that our birds get 12 to 14 hours of uninterrupted darkness every night for at least a week. It doesn't have to be pitch black but it does have to be quiet enough and dark enough to seem like night. Any light in the sleeping area shouldn't be brighter than the light of a full moon; it's OK to have a small night light. If you have a quiet, windowless room where the bird can sleep, that's perfect; or you can put a heavy cover on the cage to make it dark inside. You can test the light-resistance of the cover by draping it over your own head. It won't do any good to throw a light cover over the birdcage in a room where there's human activity going on; this might actually make things worse, since the noise and shadowy light coming through the cover will simulate conditions inside a nestbox rather than the night-time conditions that you want.

Once you've found a suitable location and/or cover, you are now in control of when "sunset" and "sunrise" occur. Follow a fairly regular schedule of 10-12 hours of light followed by 12-14 hours of darkness. In the beginning it will seem like it isn't working because the hormonal behavior isn't changing, but after about a week there will be a sudden dramatic reduction in breeding behavior. Once the change has kicked in you can discontinue the long nights if you want to, but be aware that hormone levels might start rising again if you allow longer days.

There are some cases where a bird doesn't respond to the long nights treatment but will respond to 24 hours a day of nonstop bright light, or to reversing day and night by having bright lights when it's dark outside and darkness when it's light outside. I don't know the biological reason for this result, but I would guess that the bird's body is so confused that making babies doesn't seem like a good idea.

Manipulating the environment.

Birds want to raise their babies in a safe and secure environment, and to discourage them we need to make the environment seem less safe and secure without actually scaring the birds. We do this by rearranging things so the house doesn't seem as comfortable and familiar as it did before. Some of the options are to rearrange the interior of the cage (perches, bowls, toys, etc); change the location of the cage; put the bird in a different, unfamiliar cage; put the bird in a different room; bring a large, unfamiliar object into the room and keep it there; and/or rearrange the furniture in the room.

Manipulating the food supply

It's a good time to breed when food is plentiful, so we have to make the food supply seem a little less abundant. Make sure that your birds have balanced nutrition and enough food to get through the day, but don't provide so much that it seems like there's enough available to feed babies too. Parent birds prefer soft foods for their babies so emphasize harder foods and minimize the amount of softer foods.

Eliminate nesting sites – this means NO happy huts!

Don't let your bird have regular access to anything that resembles a suitable nesting place; this applies to both males and females. There are some parrot species that sleep in a nest hole all year long, but cockatiels are not one of these species. The ONLY thing they use a nest for is making babies, and if they have a nice nesting area they will start wanting to use it. Do NOT give them a real nestbox or a happy hut (bird tent). Don't let them have regular access to dark and/or semi-enclosed spaces like cabinets, drawers, bookshelves, cardboard boxes, baskets, or underneath a bed or couch.

It's desirable to have a cage with a grate in the bottom that prevents access to the cage paper, but if your cage allows access and your bird starts doing a lot of shredding, one option is to remove the paper and wash the poop out of the empty tray when it's time to clean the cage. This may be a nuisance, but it's better than unwanted egg-laying and crazy hormonal-male behavior. If your cockatiel has a preferred nest corner in the cage or elsewhere, you can put an object in that location (like a toy or food bowl) to block it off.

Eliminate or reduce access to real or imaginary mates.

In the case of a mated pair, you can keep them in separate, side by side cages if they are content this way, with supervised out of cage time together. Don't try to separate them completely, it will make them unhappy and they will do a lot of screaming back and forth at each other. In the case of a single bird that masturbates with an inanimate object, take the object away or cover it up so the bird can't "play" with it any more.

Be careful about how you touch the bird. Head scratches are usually OK, but do NOT pet a hen on the back because this is sexually stimulating – it feels vaguely like a male standing on her back for copulation. There are some sources that recommend not touching males on the back as well, but it isn't as directly sexual for males so you can get away with more of it with them. The male and female rub their vents together during copulation so you shouldn't touch either sex in this area – not that most people would want to!

Unwanted eggs are being laid. Now what?

As a general rule you should not remove the eggs unless the egg is broken or leaking (you should remove it in that case because it's a bacteria hazard). The hen's natural instinct is to keep laying eggs until she has a full clutch, and if you remove the eggs she will lay extra eggs to replace them. If she has laid an egg in an inappropriate place, you can put it in a suitable location in the cage.

Make sure that the hen has an ample intake of calcium and vitamin D3

and try to boost the quality of her nutrition in general. This will reduce the likelihood of egg binding, soft-shelled eggs and related problems – see importance of calcium and Lighting, Diet, and Vitamin D3 If your hen has symptoms of egg binding it's a medical emergency and you need to contact a vet ASAP – see for more information. If she lays a soft-shelled or no-shell egg, her calcium levels are very low and she's at high risk for medical complications and serious problems when the next egg is laid. Quick action is needed to improve her calcium levels, and it's best to see a vet for the fastest treatment options (calcium shots), although you might be able to solve the deficiency problem with a liquid calcium supplement made for birds. There are several different

brands but they all seem to use the same formula, and contain calcium, magnesium, and vitamin D3 (the last two ingredients are necessary for calcium absorption). Some pet stores stock these supplements and some don't, so call around until you find a pet store that has it. Follow the directions carefully since an overdose is as bad as a deficiency.

If it's possible that the eggs are fertile

you have a decision to make. If you decide to let the pair go ahead with the breeding process, you need to provide them with a suitable nestbox (see Nestboxes and nestbox litter) and start learning all you can about cockatiel breeding ASAP. If you decide that you do NOT want the eggs to hatch, you can boil or freeze the eggs to kill the embryo and return the eggs to the parents after the eggs are back at room temperature, or replace the real eggs with fake eggs (<http://www.dummyeggs.com> is a good source). Then follow the recommendations for infertile eggs, substituting the word "pair" for "hen" in the following paragraphs.

If there is no chance that the eggs are fertile

you want to put a stop to the breeding process as fast as possible. Immediately start applying as many of the hormone reduction techniques as you can, but keep in mind that they might not be very effective because the hen's hormone levels are already very high. Do NOT give her a real nestbox or any kind of enclosed box, since that will help keep her hormone levels high. But do provide an open box or basket that will keep the eggs together in a reasonably safe manner, without seeming as safe and secure as an enclosed box. Let her keep the eggs for at least a week. Many birds don't start incubating until several eggs have been laid, so she might ignore the eggs at first and start sitting on them later. If she hasn't started incubating after a full week, you can be pretty confident that she isn't interested and remove the eggs. If she does start incubating, let her keep the eggs until she loses interest in them, which usually takes about three weeks or so. Hope that the hormone reduction techniques will have an effect before the eggs reach their theoretical hatch date, because if you can't reduce her hormone levels she might lay a new clutch to replace the one that didn't hatch out.

Sometimes it is effective to remove the eggs as soon as they are laid and apply the hormone reduction techniques in drastic fashion. If you have a hen that has just had a major change in her life (losing her mate or going to a new home for example) this is likely to work, although she might lay another egg or two before she stops. But in general you're taking a risk if you take the eggs away, and your hen could end up laying many more eggs than she would have laid otherwise.

Stopping a breeding pair from starting another clutch.

Many breeding pairs will want to start working on a new clutch when their current babies are one or two weeks away from fledgling. It's almost impossible to prevent them from starting a second clutch, and if you are letting them raise the babies to weaning you don't want to interfere with their hormone levels too much because of the risk that they might abandon the babies. But it's fairly easy to stop them from starting a third clutch; a light application of the hormone-reduction techniques and removing the nest as soon as the last baby fledges will usually do the trick.

Chronic egg laying

Is when a hen lays an excessive number of eggs and is pretty much unstoppable. This will eventually put her life at risk, but there are medical interventions that can help. Your vet can give her Lupron shots to reduce her hormone levels, and this is safe and effective in most cases. In extreme cases, a hysterectomy will put a final stop to the egg laying. But this is a high-risk operation in birds, so it is only done as a last resort to save the hen's life.

There have been cases where chronic egg laying stopped after the hen was allowed to hatch out and raise one or more babies (from her own eggs or "borrowed" eggs). But don't count on this to work in all or even most cases.

For those who want to breed cockatiels

Let me start this with an explanation,

I have received more than a dozen request from new members who want to buy a pair of cockatiels from me, most of these requests come from new members who have never owned cockatiels before. I hope this will enlighten some of you who want to breed.

I never started out wanting to breed my cockatiels, its just that Tony and Abby never gave me a choice. I had owned cockatiels before when I was a kid, and just wanted a couple again. The ones I had then never bred. When I was given Tony three years ago, he had been neglected, so I got him a companion bird to help settle him down. next thing I know they were laying eggs in the bottom of the cage.

I had to scramble and find some people who were knowledgeable about breeding. That is when I found this forum. Luckily for me and everyone else the experts on this forum love to share their experiences with these little clown like birds that we have all come to love (I hope every one does).

After about a year, I found that I liked breeding, and became fascinated with the genetics, so I started a small aviary. I only did this because I knew I had the time to care for the babies if something happened to go wrong. I still had to think it over for a while, and talked to many breeders on this forum before I decided to start (Thanks Roxy and Susanne). Last year was my first real breeding season, and I still had questions, and emergencies, I lost some babies that if I had more knowledge and experience I probably could have saved.

It hurts to loose one of these little lives, especially when you know that it was your ignorance that let it die. What I am getting at is, you need to make sure you have the right stuff to breed. Just having a male and a female cockatiel does not mean you have to breed them.

I do sell my babies, but I do not breed to make money, right now I have about ten people who want babies from me, so I will set up the pairs and let them breed if they want to, but I don't just breed to sell.

First all of my cockatiels are companions, I love them all and take time to play and interact with them, they are not just thrown in a cage and forgotten, until I can get some babies out of them. I can not remember names, and I would not mention them if I could, but I get the feeling that some people who have mentioned breeding or asked me about pairs, just want another income source, they have no idea what cockatiels need. These are the people who end up posting emergency questions when some thing goes wrong, and then they get all the experts on the forum trying to

help. Even then they end up losing the babies or some of them, and the experts end up feeling the loss even though they are someone else's babies.

There is also the strength of the breed in the future. Many of the posts asking about breeding, are trying to breed like to like mutations. This is not good for the quality of babies, and can cause problems for future generations.

I know several of the experts (Susanne especially) have mentioned time and time again that breeders should look to improve the breed, make it stronger, and easier to get the desired mutations. When uncontrolled breeding by novices happens, like to like mutations are bred, and small babies, babies who never hatch or do not live long after hatching, and mutation mixes that do not do justice to either mutation occur. Birds with too many splits and cross over mutations so that it will take generations to breed out.

I hope people who read this do ask the questions I had to ask, and decide that they do have the time and are willing to do the research to breed responsibly. I hope all of you can breed your cockatiels, but breed for the right reasons, and make sure you know what you are getting into.

Thanks for letting me get this out, thank you for reading this.

Ask yourself these questions before breeding...

Do You Think You Are Ready to Breed Your Birds?

Does your area have a demand for the species you have?

Do you know what a good home is for your birds' babies?

Are your birds properly bonded?

Are you home 90% of the day to catch any early problems?

Will you be home for the whole breeding process from nesting to finding homes for the babies?

Do you have enough space for the parents and babies?

Are your birds on a healthy varied diet?

Are you aware of your species special needs?

Do you know what nesting material to use?

Are your birds old enough to breed safely?

Are your birds genetically compatible?

Do you know if your birds are unrelated?

Do you have enough money to support vet checks, emergencies, or upkeep costs?

Do you have what supplies needed?

Have you researched months ahead of time?

Do you know how to handfeed whether you plan on it or not?

Are you aware that some mutations should not be bred together?

Are you aware of the health problems that could arise in your parents and chicks?

Do you know how many clutches a year are healthy for your species?

Are you prepared for a double clutch as they are nearly impossible to prevent?

Do you know how to lower your birds' hormones?

Do you want to breed just because you want babies?

Do you want to breed for money?

Do you care about what happens to the babies you find homes for?

Are your birds healthy?

Do your birds have any special handicaps?

There's a lot to think about with breeding. It's not all about fluffy little babies or money. If you are out to breed just because you want babies or because you want money, do not breed. Those are not good reasons to breed.

If you do not have time to be home to monitor problems, you compromise the birds' health. You risk losing eggs and babies because you weren't home when something needed prevention.

If your parents are not on a healthy varied diet, you are setting them and their babies up for malnourished. The parents use up much of their nourishment to feed their young.

Some mutations if bred together can pose health risks and fatalities and should be avoided.

Please do your research about breeding. It's not as easy as you think.

Are Your Cockatiels Bonded?

What do you mean by bonded?

There is a common misconception about breeding cockatiels that all you need is a female and a male and they will breed successfully. This however, is not the case. Cockatiels are very different from animals like dogs and cats where a male and female can be put together for the purpose of mating and then go their separate ways once the deed is done. No, Cockatiels have to be compatible as a pair. Cockatiels choose their mates and form strong long-term (often lifelong) bonds with their mates, almost like a "marriage", and will raise their babies together. We refer to a pair that naturally choose to be together and bond this way as a bonded pair.

What is a bondage pair?

A non bonded pair sometimes referred to as a bondage pair is essentially the opposite of a bonded pair. These birds don't really like each other and do not want to raise babies together. Cockatiels will mate and lay eggs due to increased hormones and/or the fact that they do not have anyone they like better to mate with. Cockatiels will mate for recreational purposes as well and it does not mean the two are bonded. A telltale sign of a bondage pair is if given a nestbox the pair will fight over possession of the box, one or both birds will not let the other into the box, the fighting can get very violent, if this happens the box should be removed, they are not properly bonded. This is because

the two cockatiels see each other as competition for the nestbox or an intruder rather than their mate.

Why is it important for a pair to be bonded?

Having a pair that are bonded to each other is very important for success when breeding. A pair that are bonded, like each other and want to raise babies together. A bondage pair does not want to raise babies together and therefore a lot of problems can arise when trying to breed them. Bondage pairs have a higher rate of problems incubating eggs and taking care of the babies properly.

Some problems that can happen when trying to breed a bondage pair are; excessive fighting between the pair, a female can lay the egg(s) off a perch instead of in the nestbox either due to the male not letting her have access to the nestbox or her not wanting babies, abandoning eggs or babies, and aggression towards babies. Overall you will have better breeding success with two birds that are bonded to each other.

What are the signs of a bonded pair of cockatiels?

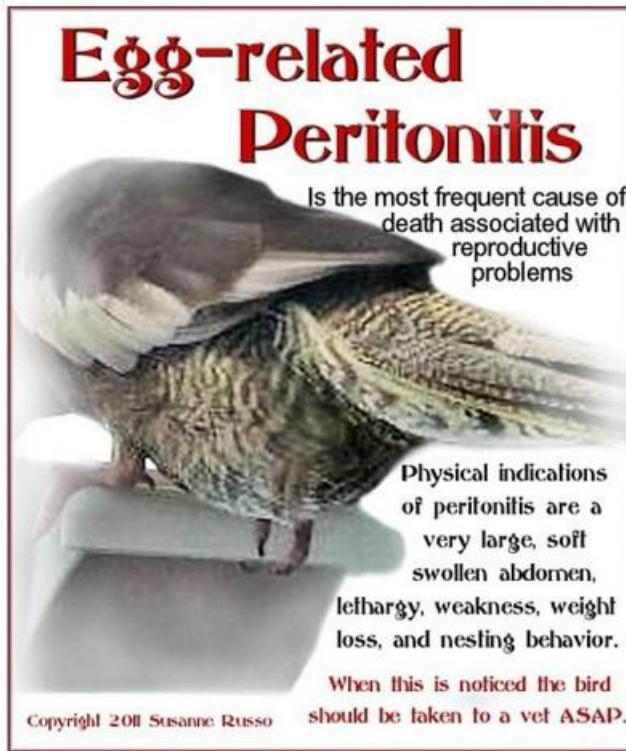
1. The pair will sleep together.
2. The pair will sit together/follow each other around/just generally want to be together.
3. The pair will eat out of the same bowl together.
4. They will preen each other.
5. If given a nestbox the pair will share the box peacefully.

How long does it take for two cockatiels to bond?

This is a difficult question to answer because all cockatiels are different. Each pair take a different amount of time to form a pair bond. It can be a couple weeks or it could take months, you cannot rush or force bonding, but once you observe all the signs of a bonded pair listed above then you know they are bonded. Cockatiels should be given ample time to get to know each other and bond before adding a nestbox. Its also important to note that some birds are just not compatible with each other.

I hope this thread helps educate those looking to breed cockatiels about the advantages of breeding a bonded pair versus breeding a bondage pair. Letting cockatiels properly bond to each other before breeding is the best way to go! Bonded pairs make better parents and its more rewarding in the long run to know that your cockatiels are happy and healthy when breeding, and that their babies have the best chance at life

Cockatiel with eggs HELP! ASAP!, PROLAPSE



Weigh the hen when you set her up. Average weight gain per egg is 5-6 grams. If no egg is laid and the abdomen looks swollen, weigh the hen. If there is 10 grams or more in gain this is an alert to a problem. If there is peritonitis the weight increase up to 20-30 grams, and skin is discolored.

Some causes for egg-related Peritonitis are:

1...Traumatic rupture of the egg from stress or or handling or restraint during ovulation, which can result in a tear in the oviduct, and partially or completely shelled eggs can be deposited in the abomen.

When skin is yellow it may still be in the Non-Septic form



2...Ectopic Egg is the failure of the yolk to enter the infundibulum resulting in free yolk in the abdomen. The yolk is gradually reabsorbed by the peritoneum which is membrane that forms the lining of the abdominal cavity



What is going on is a prolapse of the uterus, the worst kind. It appears that she has impacted a couple eggs together. How this happens is her body was not carrying enough calcium in her blood stream while the egg was in the uterus....which is the shell gland. When there is not enough calcium on the surface of the egg which the yolk and contents are contained in a sac of membrane then this membrane adheres to the uterine wall. The next egg comes down the oviduct and breaks, and the membrane adheres to this. Again the body tries to release calcium to make the shell forming a grossly oversized mass. The uterus contracts trying to expell this from the body. Since the insufficient calcium on the egg surface is drier than as normally layed shell it sticks to the tissue, and as the hen strains to lay the tissue of the uterus and oviduct is expelled with the egg encasing it in the tissue.

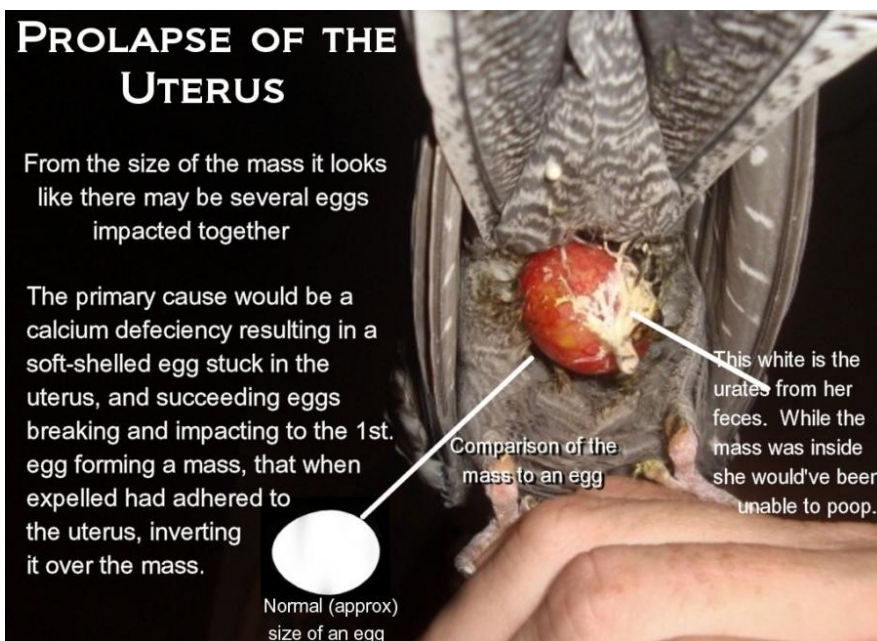
The half closed eyes are pain.

The tissue **MUST** be kept moist. Take a tissue wet with warm water and blot it several times an hour. If it dries to encased egg then the tissue loses blood blow, and makes it harder for a vet to take care of this.

DO NOT try to break the egg or cut this from the bird, she will go into immediate shock and die. This is not a simple repair like just the tissue exposed which can be inserted back in the body. A vet would have to carefully implode the egg, and make a small incision to remove the shell and membrane. If tissue is still healthy it is reinserted in the body.

Worst case scenario a vet would have to do a birdie hysterectomy....which involves removing the whole oviduct including the ovaries.

In addition to what is going on there is a good chance that more eggs might be forming. OR an ectopic egg happening...which could be from a tear in the oviduct (resulting from the impaction) and the succeeding egg matter and yolk getting deposited into the abdominal cavity causing peritonitis.



DO NOT
Let the tissue dry out

Use a disinfectant to clean the tissue

Use warm running water

Once clean, blot excess moisture from the tissue

Sugar
OR
Honey
OR
Prep H
is used to help reduce swelling of exposed tissue

Prolapse

Emergency Treatment

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What you can do until you get to a vet

Can relieve pain prior to insertion of the tissue

Important Use a water based lubricant
AVOID using

1 Clean the prolapse by under warm running water or a warm saline solution, then follow-up with an antiseptic rinse.

2 Blot tissue dry. Coat all the tissue with Sugar, Honey, OR Prep H. Leave on 15-20 min, rinse and blot dry.

3 Put some K-Y Jelly on the end of a Q-tip and gently push to reinsert the prolapsed mass very back into the vent. Place your finger over the vent for 30-60 seconds. Place the hen in a warm humid hospital cage. Check that the prolapse remains in.

4 If it prolapses, repeat the steps above. If after 2 failed attempts go to your vet to place a suture to keep the tissue inside.

<http://www.internationalcockatielresource.com/prolapse-a-secondy-problem.html>

Slow crop: emptying the crop without special equipment

In cases of slow crop or sour crop, old undigested food has to be removed from the crop before remedies can be applied. The links in our sticky on feeding problems and development issues at <http://talkcockatiels.com/showthread.php?t=27514> talk about flushing out the crop using a catheter or feeding tube, but there is another technique for emptying the crop that doesn't require any expertise or special equipment. The rest of this article consists of comments made by srtiels in the thread at <http://talkcockatiels.com/showthread.php?t=20266> with edits for clarity in brackets [].

If there is old food in the crop it has to be emptied (hold baby with head facing down and massage food out of the crop) out before any new food is put in the crop.

You would hold the bird head facing down, and massage/work from the base of the crop to help to push the food out of the crop and mouth. Have a Q-tip ready to wipe out any excess formula in the mouth...if needed. I hold the baby over the sink, my hand wrapped around the shoulders and body with the head facing towards the sink. Not upside down like it's on it's back but upside down meaning the head is facing downward.

[The hand position] is the same position as if you were holding the mouse of your computer....meaning your palm is over the back of the bird and your fingers wrapping around the body. Hold the bird with the head facing downwards....then push/massage food up the neck/throat starting at the base of the crop.

[If it is difficult to empty the crop] you can carefully feed 1-2cc of AS [Alka Seltzer] or water. This will thin down the crop contents some so that they are easier to massage out. [If you see bubbles] in the crop it is because the food is soured and fermenting.

If you are unsure how to empty the crop you might phone around to see if a breeder or a shop owner can show you how and empty the crop the first time. An experienced person may also have a tube to go into the crop and suck out the contents.

Once the crop is empty you will want to do the Alka Seltzer (AS). Let the baby digest 1-2cc of the AS water. Then feed 1/2 of [the amount of formula] you normally feed with a pinch of the spice mix added.

Do the half feeding until you get good crop emptying. Once you know the crop is emptying then you can go back to feeding the [normal amount of] 10% of body weight. I'd use the spice mix for a week.

Baking soda [is an alternative to the Alka Seltzer]. Go with 1 tsp. of baking soda dissolved in 4 oz. of warm water.

[If the formula is coming out] but it still feels like there is something in the crop this could be yeast building up on the inside wall of the crop thickening the skin.

If you do the AS or baking soda let the chick digest some of this first to help clear out the intestines of old or harmful food in the digestive tract. The feed 1/2 the [normal amount of formula] with yogurt and spice mix mixed in.

[If this does not solve the problem] there is one thing that will get movement in the intestinal tract....which is Sub-Q (subcutaneous) fluids. (Must get supplies from a vet, and have them show you).

[If] you have any 'human' antibiotics on hand... especially Keflex in capsule form, I have found this antibiotic is great with babies having crop problems.

Help! How do I empty the crop?

WHY do I need to empty the crop?

NOTE: If you have never emptied out a crop, please have your vet or an experienced breeder show you how to do this. IF done improperly you can damage the crop wall, and/or risk aspirating the baby.

When I notice the first indications of a slow crop I will empty out the food from the crop. It is **IMPORTANT** to do this, and **THE FIRST STEP** to quickly restore crop movement. **WHY?** If the food that is in the crop is soured it will also contain yeast and/or bacteria. When you are adding to what is in the crop this contaminates the new food. As this food is digested not only is the intestinal tract absorbing nutrients from the food it is also absorbing any pathogens such as yeast and/or bacteria.

Position to manually empty the crop

NOTE: If the contents of the crop are thickened dilute with 1cc of A-S or B-S solution to thin so that it is easier to get out of the crop. Let the baby rest THEN flush out the crop.

BE CAREFUL don't rush

Hold the baby's head firmly in place.

CAUTION While emptying the crop keep the neck fully extended. Do NOT let the crouch down. **WHY?** Because the crop contents can be pushed up the neck, into the throat, and aspirate the baby/bird.

Hold the baby cradled in your hands as shown, with head facing down. Use your fingertips to massage/work from the base of the crop to gently push the food up the neck and out of the mouth. Once done turn the baby so that it is facing you and look at the mouth. IF NEEDED: Have a Q-tip ready to wipe out any excess formula in the mouth.

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If the baby is not digesting the food 'must' come out. The illustrations below contain important information. And the crop will need to be flushed. The illustration below answers the most common questions.

How do I flush a Crop?

WHY must I do it?

What can I use that will work?

Sodium Bicarbonate is actually an antacid and acts as a systemic alkalizing agent is highly soluble and reacts almost instantly with the hydrochloric acid (in the Proventriculus/Gizzard) to form carbon dioxide, salt and water. Carbon dioxide is absorbed and reconverted to bicarbonate in the body. I have used a form of **AS** (abbreviated) sodium bicarbonate, which is an ingredient used in Alka-Seltzer. **BS** (abbreviated) Products such as Alka-Seltzer, baking soda, and vinegar help towards balancing alkaline (sodium bicarbonate and citrate) levels or increasing acidity (acetic acid, vinegar) which inhibits the overgrowth of yeast.

Dissovlve 1/2 tablet in 4 oz warm water

Tube feed 2-3cc of solution into the crop

Pull the solution up-down to agitate/mix

SUCK this out of the crop REPEAT Crop Wash Solution

Dissovlve 1/2 tsp in 1/4 cup warm water

Alka-Seltzer ORIGINAL

ARM & HAMMER Pure Baking Soda
America's #1 Trusted Baking Soda Brand

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A few cautions... Be very careful when flushing or emptying a crop. This illustration shows what to do if the baby is aspirated and acting quickly.

Asphyxiation

means depriving of oxygen that can result in death
May occur from aspiration of formula into the respiratory tract

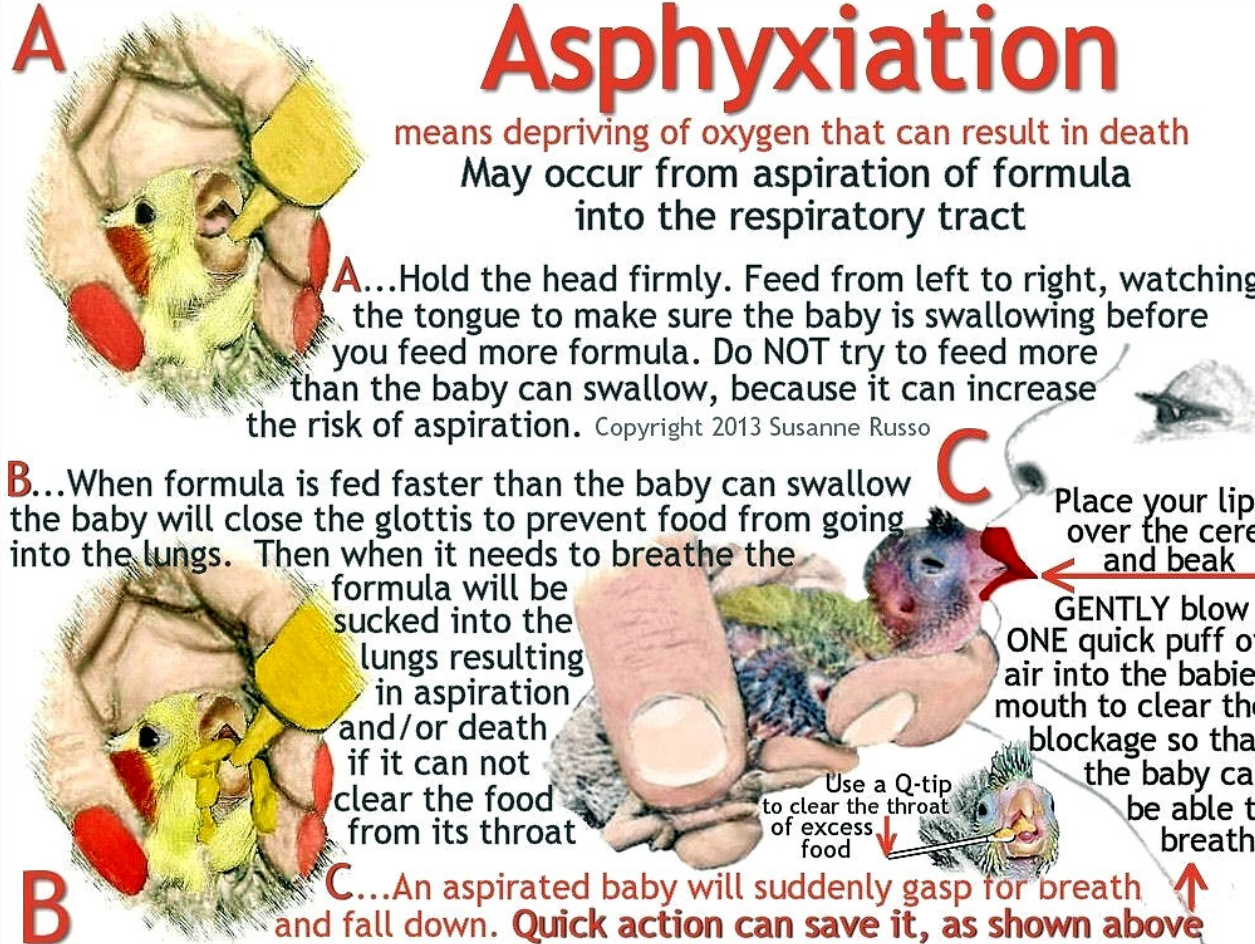
A...Hold the head firmly. Feed from left to right, watching the tongue to make sure the baby is swallowing before you feed more formula. Do NOT try to feed more than the baby can swallow, because it can increase the risk of aspiration. Copyright 2013 Susanne Russo

B...When formula is fed faster than the baby can swallow the baby will close the glottis to prevent food from going into the lungs. Then when it needs to breathe the formula will be sucked into the lungs resulting in aspiration and/or death if it can not clear the food from its throat

C...An aspirated baby will suddenly gasp for breath and fall down. Quick action can save it, as shown above

Place your lips over the cere and beak
GENTLY blow ONE quick puff of air into the babies mouth to clear the blockage so that the baby can be able to breathe

Use a Q-tip to clear the throat of excess food



Other ways a baby can aspirate are less obvious.

For example, once the baby learns to fly never feed it before it takes off to fly. Let the baby fly first. The reason for this is if the baby crashes, and lands wrong on its crop the food can gush up the neck and into the throat. If the baby takes a breath, it will inhale the formula into the lungs. Another scenario would be several babies in the brooder. This is fine because the babies will share body heat, and it is comforting to them to be in with other babies. What you do not want to see is one baby jumping and climbing on top of another baby. WHY? Because if the baby's foot steps on the lower neck or crop area this can make the formula gush up the neck and into the throat.

If you suspect aspiration act quickly with 'Supportive Care'

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Help! I aspirated the baby



**GOOD
BEST**

Use Spring Water

My vet had advised me the **FIRST** thing that should be done when there is a respiratory problem is to get Vit.A into the bird **ASAP**. Over the years I have used some natural remedies with excellent results

UNIVERSAL DOSAGE for ANY extracts or capsules
3 drops PER 30 gr of body weight

Make a stock solution

2cc water
3 drops each
Astragalus
Vit A, Aloe
Elecampane
Dandelion

EXTRACT

10cc water
1 capsule each
Elecampane
Dandelion
Carotene

CAPSULE

Glass jar to store stock solution
Good for 1 wk
Refrigerate

Immune Support

NOTE: These remedies can be used as a stand alone treatment or mixed with the formula

3 drops PER 30 gr. of body weight

Stock Solution

2cc water
10 drop
Astragalus
Aloe

SWANSON
Alcohol & Sugar-Free
Astragalus Root
Liquid Extract

WYOF THE DESERT
WHOLE LEAF
ALOE VERA JUICE
CAREFULLY PREPARED TO PROTECT THE DIGESTIVE SYSTEM
473 ml





Use ANY brand name

NOTE: ALL these can be ordered online or found in a health food store

Diuretic

This herb will help to remove fluids from the lungs





NOTE: Use WITH the A or Carotene



I have updated my Sour and Slow Crop Remedies article. Many of the above illustrations were made for this update. There is a lot of helpful info in the article that should help to avoid slow/sour crop, and many new remedies.

<http://www.justcockatiels.net/sour-and-slow-crop-remedies.html>

<https://web.archive.org/web/20170715160404/http://www.justcockatiels.net/sour-and-slow-crop-remedies.html>

I've also updated my Spice Remedy. BOTH Spice Remedies are effective. The reason why Turmeric was added is for babies with advanced problems that are at risk of the yeast and/or bacteria going systemic. The Turmeric acts to inhibit pathogens from being absorbed in the digestive tract, and also protects the liver.

Any brand of spices can be used



Mix in a small glass
1/8 tsp of spice mix to 2cc Water

NOTE: Optional a pinch of Probiotics or Yogurt, and Brewers Yeast can be added separately to the formula if the baby appears pale or stressed.

What has worked for me with positive results...
Each chick is given a 1/2cc (.5cc) 2 times a day for 5-7 days...OR...If I am hand feeding a lot of babies I will mix 1/4 teaspoon PER 1/2 cup of formula 2 times a day.

This combination of spices will help cut down on the yeast and bacteria by means of inhibiting overgrowth while boosting the immune system, and providing nutritional and supportive care to the digestive tract, body and organs.

NOTE: If no change in 24 hours, go to a vet, ASAP

SPICE REMEDY

Mix the following and store in a small jar or pill bottle

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2 tsp Garlic Powder
1/2 tsp Cinnamon
1/2 tsp Ginger
1/2 tsp Turmeric

The spice remedy is designed as a supportive treatment rather than for any antibacterial or antifungal properties

Use by:
NOTE: this mix is good for 1 month

Emergency Stickies

Supplemental Heat

Below is an article I've been working on. Hopefully several people can add to it, and possibly post some pictures showing some of their hospital cage set-ups. Hopefully the moderators can add this to the sticky pages for future reference.

When a cockatiel looks or acts off our first instinct is to provide it heat. The main goal of this is to help the bird to regulate it's body temps until we can either determine the problem or see a vet. Regulation of body temperature depends on several things, which you can use the listing below as a checklist.

The normal body temperature of a cockatiel is between 104-105 degrees (40-40.5 C) The easiest way to get the body temp is if you have a digital thermometer. It can be held under the wing with the tip placed into the wing pit, and the wing held down in place til the thermometer reads the temp. If the body temp is below 104 degrees (40C) then supplemental heat is needed. This same reading can be done on other species of birds to record their body temperatures when healthy, which would be a good reference for future use. I would like to note that if it is a handfed baby, it is always best to feed the chick formula that is it's normal body temp. This helps the body to conserve energy, rather than use it to warm up the food for digestion.

Heat is lost from the body by 3 ways:

Radiation

Which is from the surface of the birds body, such as any exposed skin. If heat is lost this way, adding humidity will help reduce the loss of heat through evaporation from the skin. Any exposed skin is porous and will absorb humidity to help maintain hydration. Humidity can be added by having a jar filled with warm water (with a top that is punctured with holes) placed in the corner of the container/cage. Or, if a heating pad is under the container/cage some of the bedding can be wet in a corner to get warm and evaporate to bring humidity levels up. If the cage/container is covered the covering can also be very lightly misted on the inside to increase humidity levels. NOTE: If using a heating pad under the bird make sure that you have 1" or more distance from the floor of the cage so that the bird does not suffer from hyperthermia.

Convection

Which is the air surrounding the bird should be equal to or just slightly under the birds normal body temps. I have found that (do a Google search) that T-Rex Cobra Heat Mats work very well as a source for convection air surrounding the bird in a hospital or supportive care environment. I have a little info on my Mousebird site, and have to soon update with pictures: Emergency heat If it is a baby from the nest or a small bird a glove can be filled with warm water and used for a quick source of heat until a container can be setup: heat source used for small chicks.

Other alternative sources of heat can be provided from a hot water bottle wrapped in a towel.

Birds that suffer from foot problems or fractures should be in a wire enclosure to encourage them to use their beak on the wire for balance and the feet for something to grip. If perches are used they

should be placed close to the floor to minimize on further injury. Avoid any contact to a heated surface.

If a bird has to be treated with a medication, it is best to have the hospital cage/container big enough so that you do not have to remove the bird. Ambient temps for adult birds should be 85 degrees (29.44C) with humidity at approx 60-70 %. Unfeathered chicks under 10 days old should have an ambient temp. of 94 degrees (35 C), and older babies at 90 degrees (32.22C) Clinical signs of hyperthermia (over-heating) are panting and holding the wings away from the body.

Conduction

Which is metal or wood surface which is colder than the bird, and these cooler surfaces will draw heat away from the bird, which is stressful and the bird has to use body reserves to generate heat to compensate. If the bird is able to perch at heated perch may be beneficial.

Below are several things to consider or address when a bird is placed in a heated environment or hospital cage.

Feather condition (Fluffed-up, molting, plucked)

Many times the condition of the feathers can be a clue to a problem. Such as stress due to changes or illnesses can result in stress bars on new feathers growing in during a molt. When a bird does not feel well it will find a corner or a perch and try to limit its movement to conserve on energy and body heat. When conserving body heat the body plumage will appear fluffed. If a bird is suffering from a zinc (heavy metal) toxicity many times there is a subtle change of plumage and the feathers will appear slightly darker and have a satin sheen to them. If a liver problem, as it advances the white barring will get a yellow wash to it. If a bird is plucked, and has problems it is harder to maintain body temperatures due to evaporation through the exposed skin. Determining the cause of plucking needs to be resolved. Several common causes with cockatiels would be food allergies (corn), giardia, zinc toxicity, stress, boredom, environmental contaminants, intestinal parasites (plucking around the vent), and renal/kidney problems (plucking on the rump above the tail, and necrotic long down feathers on flanks)...to name a few.

Fat and muscle content, (overweight, or losing weight)

When a bird is unwell and not active it needs to be monitored as to if it is maintaining weight or losing weight. Having a grams scales that weighs in increments of 1 gram is very helpful to monitor weight. It is best to keep some records on each bird to have a record of what their normal weight is. This way you have a base number to determine weight loss or gain. What you want to see is, if the bird appears unwell, is it maintaining the weight or losing weight.

When weight is lost what is happening is the birds body is drawing from the fat stores and muscles. The fat stores contain all the fat soluble nutrients such as vitamin A, C, D, and E, and many of these nutrients are helpful to maintain or boost the immune system in times of need. When the fat reserves are used up the body then starts to draw from the protein sources of the body which are from the muscles. When this occurs weight gain can be rapid. A bird that has good weight can become emaciated within hours or a day. Weight loss is rapid and can be a gram or 2 per hour when the body starts to draw from the muscle, in addition to loss of body fluids.

Excessive weight gain can also be a concern when a bird appears unthrifty. Many times when there is a problem with liver function or reproductive problems such as peritonitis the body will retain fluids (which is called ascites) which will accumulate in the abdominal cavity. This fluid can either be sterile, or septic (contain bacteria) and needs to be analyzed and treated if necessary.

When a bird is losing weight and its feet feel cool, and it is having a hard time maintaining body heat it is safe to 'suspect' that there may be a bacterial infection as the cause. If it is a hen, and has been setup for breeding, and showing signs of possibly being egg-bound, and no egg is felt then possible peritonitis can be suspect. But regardless of the problem, heat is beneficial until the bird can be seen by a vet. Heat helps the bird from further stress. Stress can trigger secondary bacterial or yeast problems and further compound existing issues.

Hydration status

Dehydration lowers blood and body fluid volumes and drops the core body temps. Birds that suffer from shock or trauma will also benefit from hydration. The normal distribution of fluids and water in the body are as follows. Total body water in an adult bird accounts for approximately 60% the body weight, and the percentage is even higher in young birds. Extracellular water constitutes approximately 18 to 24% of the body weight, depending on the method used to determine its volume from the bird's age, sex, and lean body weight. Blood volume (cells and plasma) constitutes approximately 4.4 to 8.3% of body fluid volume in thickness. In other avian species percentages can be as high as 14.3%.

When a bird is losing weight part of this can be a result of losses with fluid volumes in the body, in addition to tissue loss. Loss of fluids from the body include, urine, feces, respiration, not drinking. Sources of water for the body are by ingestion, water in foods, water produced through the metabolic process in the body, and from absorption through the skin from humidity.

A physical examination can be done to determine if a bird is dehydrated. You can look for an area of the skin that is unfeathered (usually under the wing near the flank) and pull on the skin between your fingers. If the bird is hydrated the elasticity of the skin will pull the skin back flush to the body. If the bird is dehydrated the skin will remain tented from the body for a few seconds. The skin may also look very dry, have a wrinkled look, and the flesh under the skin a reddened look. The eyes will appear dull, flat or sunken into the head. The feet and beak will feel cool. The heart rate will be increased. And the toes will have a thin stick-like look to them.

There are several degrees of dehydration that can be determined from physically looking at the bird.

- Under 5% is very difficult to detect.
- 5 to 6% shows a very subtle loss in skin elasticity.
- 7 to 10% will show a definite loss of skin elasticity, prolonged filling time of the basilic artery and veins, dry mucous membranes, loss of brightness and roundness of the eyes, with a sunken appearance.
- 10 to 12% Tented skin stands in place, possible signs of shock, muddy color to the scales of the feet, and thinness of the toes, dry mucous membranes, cool extremities, increased heart rate, poor pulse quality.

- Extreme depression, signs of shock, death imminent if hydration is not corrected.

When dehydrated the bird is in need of fluids. In order for digestion and the organs to work efficiently they must have good hydration. Digestion and organs can get severely impaired or fail if hydration is not corrected.

If the bird will eat and drink this is one source of fluids. Below is a recipe for a homemade electrolyte solution that can be used for the water or be carefully fed orally. Other ways of getting fluids into the body can be done by gavage or tube/crop feeding about 1/2ml at a time. Or in extreme cases fluids can be administered Sub-Q (subcutaneously) under the skin. A vet can calculate how much fluid would be needed by the stage of dehydration and body weight. The vet can also show a client how to administer the fluids, amounts and frequencies needed. Note: The fluids should be warmed to body temperature.

Home Made Lactated Ringers

(Electrolyte solution for re-hydration)

Mix the following in a jar:

8 oz. (236.58 ml) of warm water

½ Tablespoon of sugar

⅛ Teaspoon of salt

⅛ Teaspoon of baking soda

Stir well, and refrigerate. This solution is good for 2-3 days when mixed. Initially the solution can be mixed 50/50 with water till the bird gets used to the taste.

Food intake

When a bird is sick it is important to determine if it is eating or not. As a good guide, if it is eating it should be pooping. Foods like spray millet are good for convalescing birds because it is easily digestible, and a good source of energy. If the bird is interested in eating, food and water should be placed close to the bird. If not eating, seeds, pellets, and veggies can be spread on the floor of the cage around the bird to encourage picking and eating. NEVER attempt to do a diet change when a bird is debilitated.

If a bird is losing weight, it is wise for a person to know how to tube/crop or gavage feed if the bird is not eating on its own. Tube/crop or gavage feeding should be skills all person should learn how are safely done so that in times of need you would know how to do this. The tools needed for doing this would be a good addition into a birdie first aid kit. Many times when there is extreme weight loss the bird will need an easily absorbed source of protein and amino acids. I have found that dissolving several grains of bee pollen in ½ to 1ml water, and adding to a hand feeding formula to feed is very helpful. Adding a little probiotics or yogurt will also aid in good intestinal flora. If the bird is weaned or an adult the crop skin will be small and tight, so the capacity for food is small. The max that should be fed to is 2-3ml at a feeding at a temperature of 104 (40C) degrees.

If a bird is very lethargic, it can be due to being hypoglycemic, and a drop of Karo Syrup or Honey can be added to 1ml of water, and orally fed. Or several drops of each can be added to the drinking water. If the bird is a female and a calcium deficiency (such as egg-binding) is suspected a

drop of oral calcium (neocalglucan, which can be from a pharmacist), or a TUMS tablet can be crushed, and ¼ tablet mixed with 1ml of water, and a couple drops orally fed will help get calcium into the body.

Respiration (normal or labored breathing)

When a bird has labored, open mouthed breathing this can be a source of moisture loss as it expels air. An environment that contains heat and humidity is very beneficial to respiratory problems

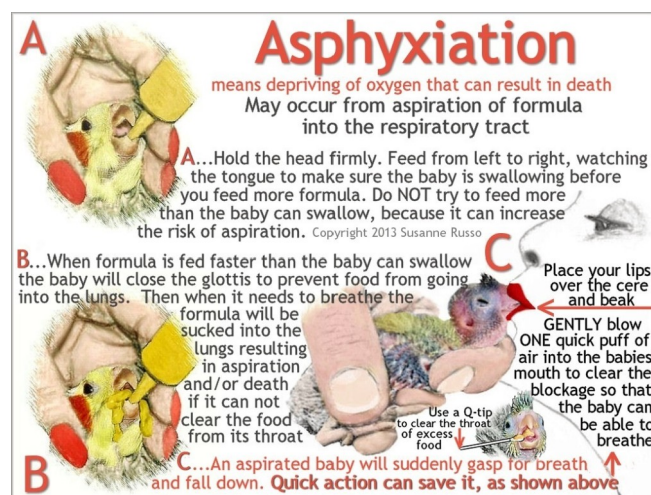
Some primary respiratory diseases include: labored breathing can be from shock or trauma, a systemic bacterial, fungal, chlamydial, toxins, ingested foreign objects, parasitic infections, fluid accumulation (ascites) in the body cavity that put pressure on organs and the air sac along the side of the body, mycoplasmal, or neoplasia. Extrarespiratory diseases include: thyroid, hepatic, renal, gonadal, oral masses, colelomic fluid, cardiovascular disease, and neoplasia.

When a bird has a bacterial infection this can lower body temps. Low body or blood volumes also contribute to a lower body temperature.

A vet visit would be in order and diagnosis can be determined by, a CBC, chemistry panel, radiography, and abdominocentesis (drawing of fluid from body, if present) Therapy is based on the diagnosis and may include oxygen therapy, antibiotics, anti fungal, vitamins, nutritional support, and fluids. During treatments, until the bird is stabilized keep in a heated environment

Aspiration Scare

Well I know I'm not the only one who dreads this, and it can happen so quickly that everything seems lost. Last Night I went to give my clutch of 4 week old their bedtime feeding, everything was gonna great, until baby number 5's turn, I'm not sure exactly what happened one minute his head was bobbing for food and i was giving it to him and the next he was withering and convulsing on the table, thankfully because of Susannes Advice on another thread I had read the baby is fine. I was so scared for a moment, and then my brain remembered and I just picked up that baby put his little beak in my mouth and gave it 2 quick but soft breathes, i then held him and checked him over once he was back to crying and being himself, i placed him in with his clutch members, he then proceeded to do the kissing motion with his siblings and seems to be back to his normal self. It can be such a scary experience, and even the most experienced breeder will aspirate a chick, and being fearful of aspirating another is not the way to go especially when you have 8 others who depend on you. Just thought I'd share my experience in hope that it can help others.



This can happen sometimes (rare instances) when parents are feeding chicks in the nest. I have found that many times soft foods tend to be more sticky and can gunk in the babies mouths and impact in their throats preventing food from going down the to the crop. The next time they feed the airway gets blocked and the chick smothers and dies.


It is always best to check the inside of the babies mouths for the first 10 days to make sure they are clean and free of any buildup inside the mouth, or face/head.

Bedding such as Carefresh or corn cob can also be cause for aspiration in the nest.

Cockatiel with eggs HELP! ASAP!, PROLAPSE

Egg-related Peritonitis

Is the most frequent cause of death associated with reproductive problems



Physical indications of peritonitis are a very large, soft swollen abdomen, lethargy, weakness, weight loss, and nesting behavior.


When this is noticed the bird should be taken to a vet ASAP.

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Some causes for egg-related Peritonitis are:


- 1...Traumatic rupture of the egg from stress or or handling or restraint during ovulation, which can result in a tear in the oviduct, and partially or completely shelled eggs can be deposited in the abomen.
- 2...Ectopic Egg is the failure of the yolk to enter the infundibulum resulting in free yolk in the abdomen. The yolk is gradually reabsorbed by the peritoneum which is membrane that forms the lining of the abdominal cavity

When skin is yellow it may still be in the Non-Septic form



Thanks Clive for permission to use your photo

Weight Loss
Prominent Keelbone



When the skin is orange it is septic, meaning bacteria in the abdominal cavity.

What is going on is a prolapse of the uterus, the worst kind. It appears that she has impacted a couple eggs together. How this happens is her body was not carrying enough calcium in her blood stream while the egg was in the uterus....which is the shell gland. When there is not enough calcium on the surface of the egg which the yolk and contents are contained in a sac of membrane then this membrane adheres to the uterine wall. The next egg comes down the oviduct and breaks, and the membrane adheres to this. Again the body tries to release calcium to make the shell forming a grossly oversized mass. The uterus contracts trying to expell this from the body. Since the insufficient calcium on the egg surface is drier than as normally layed shell it sticks to the tissue, and as the hen strains to lay the tissue of the uterus and oviduct is expelled with the egg encasing it in the tissue.

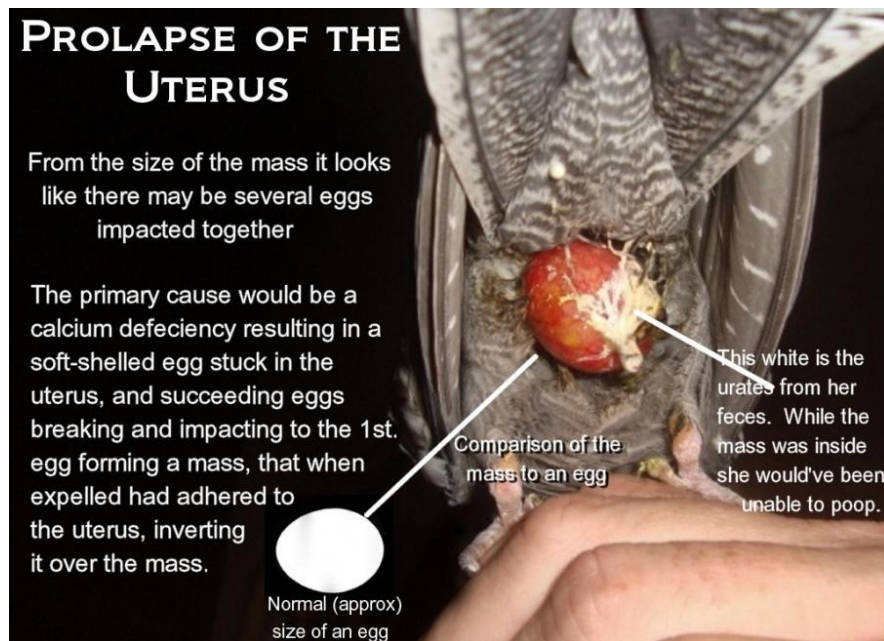
The half closed eyes are pain.

The tissue **MUST** be kept moist. Take a tissue wet with warm water and blot it several times an hour. If it dries to encased egg then the tissue loses blood flow, and makes it harder for a vet to take care of this.

DO NOT try to break the egg or cut this from the bird, she will go into immediate shock and die. This is not a simple repair like just the tissue exposed which can be inserted back in the body. A vet would have to carefully implode the egg, and make a small incision to remove the shell and membrane. If tissue is still healthy it is reinserted in the body.

Worst case scenario a vet would have to do a birdie hysterectomy....which involves removing the whole oviduct including the ovaries.

In addition to what is going on there is a good chance that more eggs might be forming. OR an ectopic egg happening...which could be from a tear in the oviduct (resulting from the impaction) and the succeeding egg matter and yolk getting deposited into the abdominal cavity causing peritonitis.



DO NOT
Let the tissue dry out

Use a disinfectant to clean the tissue

Use warm running water

Once clean, blot excess moisture from the tissue

Sugar OR Honey OR Prep H is used to help reduce swelling of exposed tissue

Prolapse

1 2 3 4

Emergency Treatment

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What you can do until you get to a vet

Orajel
EXTRA STRENGTH
Benzocaine 20% w/v
Relief of acute toothache

Can relieve pain prior to insertion of the tissue

K-Y
JELLY/GELÉE
Personal Lubricant
Lubrifiant personnel

Important Use a water based lubricant
AVOID using

Q-tips
Precision Tips

MINERAL OIL
Vaseline

- 1 Clean the prolapse by under warm running water or a warm saline solution, then follow-up with an antiseptic rinse.
- 2 Blot tissue dry. Coat all the tissue with Sugar, Honey, OR Prep H. Leave on 15-20 min, rinse and blot dry.
- 3 Put some K-Y Jelly on the end of a Q-tip and gently push to reinsert the prolapsed mass very back into the vent. Place your finger over the vent for 30-60 seconds. Place the hen in a warm humid hospital cage. Check that the prolapse remains in.
- 4 If it prolapses, repeat the steps above. If after 2 failed attempts go to your vet to place a suture to keep the tissue inside.

<http://www.internationalcockatielresource.com/prolapse-a-secondy-problem.html>

Care credit

Care Credit is a credit card that you can get for your veterinary needs. Once approved then you can make payments on services you received.

Check out the link and see if there is a vet in your area by using their search boxes.

<https://www.carecredit.com/>

And here is a link to search for vets that take Care Credit by state:

<https://www.carecredit.com/doctor-locator/>

If in the US, this link is helpful in finding a vet:

<https://www.beautyofbirds.com/recommendedvets.htm>

I did an internet search and there is a form of Pet Care in Australia.

<http://www.carecredit.com.au/>

And a link to search for a your area:

<http://www.carecredit.com.au/Patients/FindPractices.html>

Many people come on the forum and their first posting asking for help with a health issue with their bird. No one on the forum is a vet, and many times with minimal info. from the poster it is hard to know what is wrong with the bird or offer suggestion.

Many that also post say that they can not afford a vet, but in fairness to the bird if it has a serious problem it should be seen by a vet, preferably an avian vet, or one experienced with seeing exotics and avians, in addition to other animals they see. The above link give you some options to use if needed, when you need help and \$\$ are short.

NOTE: If you are a minor (under the age of 18) please do not use that as an excuse to not seek treatment from a vet when needed. As long as you are under the care of an adult so is your pets and other property, and it is the adults respectability towards care for your pets.

I don't know if there are similar programs in other countries...I'll have to check.

What To Do If You Lose a Bird or Find a Bird

The warmer weather brings about more risks to bird owners. Windows are left open, doors are opened as people come in and go out of their home. Accidents happen where a bird flies out an open window or open door. Or, worst case scenario, they bring their bird outside without a harness or cage and the bird flies off. A clipped bird can still fly away!

Should you lose your bird, there are several things you can do.

If the bird remains in the area you can try to coax them down with a favorite treat or toy or even a friend of theirs. If possible some people have had success with spraying the bird down with a hose, but keep in mind sometimes this scares off the bird, so do not use this unless last resort.

If the bird leaves the yard and you can no longer see them, play calls from your bird species from YouTube or other sound playing device. Sometimes the bird will hear this and come back.

Leave their cage outside with the door open and food and water inside. If you have other birds, do not do this with them inside it, place them in another cage to prevent them from escaping. If you have other birds, place them in a closed cage outside as well, they may attract your lost bird back.

Post lost ads anywhere you can. Online and vets are great places to post, and so are pet stores. Many times if someone finds a bird they will bring it to the vets or pet store. So those are good places to post an ad. Search lost ads in case someone found your bird. There are some online sites that are specifically used for reporting lost and found birds. Check into these and post on them and check them daily.

NEVER give up. People have found their lost birds in a matter of hours, days, months and in some cases even years after their bird was lost. Never give up, always keep looking because you may never know, someone may have found your bird.

If You Find a Lost Bird...

If you find a lost bird and catch it, place it in a cage with no other birds (quarantine) with fresh food and water and allow the bird to rest. They will likely be scared and will need some quiet time and rest.

Address any problems, such as injury as soon as you can, most of these will require vet check ups.

Post a found ad at stores, vets, and online. Make sure you have the right owner for the bird, don't make the ad super detailed, leave major identifications out of the ad and ask the person to describe their bird, and ask them if their bird had this feature (for example, band numbers, old injury, deformity, certain color pattern, etc). This way you can guarantee the bird is going to the right owner. Some birds look the same, so it isn't always possible to do so. Some injuries do happen after the bird escapes as well so this may not be the most fool proof identification.

Keep looking for the owners as they may be looking for the bird still. Report the bird to your local humane society and your local vets, report it online, just get the word out there that you found a lost bird.

People often are very upset about losing their bird and would want nothing more than to find their beloved pet. It is the right thing to do for the bird to try to search for the birds owner(s). The bird will be missing its old owner and the owner will be missing their bird. So please always, always get the word out there. Of course, if no one comes forward for a few months, you can consider keeping them, but it is still a good idea to keep an eye out.

Ways To Prevent Escape

Check windows and doors prior to letting your bird out of the cage.

Make sure the birds cage is securely shut should you have windows open or doors open. Always be sure the cage is secure if you bring the cage outside. If the bottom is not secure on some cages the bottom can fall off and the bird can escape that way.

If your bird is a known escape artist, make sure locks are on the cage and are secure before the bird has any chance of escape outside.

If you bring your bird out on a harness, be sure the harness fits securely and make sure the harness is in good condition so the bird cannot get out of it.

Never bring your bird outside without a cage or harness, even if its wings are clipped--clipped birds still do escape and with the right conditions can go very far.

Places to check for lost birds and to post ads for lost and found:

<https://www.parrotalert.com/>

<https://www.craigslist.org>

<https://www.kijiji.ca/>

<http://www.911parrotalert.com/>

Slow crop: emptying the crop without special equipment

In cases of slow crop or sour crop, old undigested food has to be removed from the crop before remedies can be applied. The links in our sticky on feeding problems and development issues at <http://talkcockatiels.com/showthread.php?t=27514> talk about flushing out the crop using a catheter or feeding tube, but there is another technique for emptying the crop that doesn't require any expertise or special equipment. The rest of this article consists of comments made by srtiels in the thread at <http://talkcockatiels.com/showthread.php?t=20266> with edits for clarity in brackets [].

If there is old food in the crop it has to be emptied (hold baby with head facing down and massage food out of the crop) out before any new food is put in the crop.

You would hold the bird head facing down, and massage/work from the base of the crop to help to push the food out of the crop and mouth. Have a Q-tip ready to wipe out any excess formula in the mouth...if needed. I hold the baby over the sink, my hand wrapped around the shoulders and body with the head facing towards the sink. Not upside down like it's on it's back but upside down meaning the head is facing downward.

[The hand position] is the same position as if you were holding the mouse of your computer....meaning your palm is over the back of the bird and your fingers wrapping around the body. Hold the bird with the head facing downwards....then push/massage food up the neck/throat starting at the base of the crop.

[If it is difficult to empty the crop] you can carefully feed 1-2cc of AS [Alka Seltzer] or water. This will thin down the crop contents some so that they are easier to massage out. [If you see bubbles] in the crop it is because the food is soured and fermenting.

If you are unsure how to empty the crop you might phone around to see if a breeder or a shop owner can show you how and empty the crop the first time. An experienced person may also have a tube to go into the crop and suck out the contents.

Once the crop is empty you will want to do the Alka Seltzer (AS). Let the baby digest 1-2cc of the AS water. Then feed 1/2 of [the amount of formula] you normally feed with a pinch of the spice mix added.

Do the half feeding until you get good crop emptying. Once you know the crop is emptying then you can go back to feeding the [normal amount of] 10% of body weight. I'd use the spice mix for a week.

Baking soda [is an alternative to the Alka Seltzer]. Go with 1 tsp. of baking soda dissolved in 4 oz. of warm water.

[If the formula is coming out] but it still feels like there is something in the crop this could be yeast building up on the inside wall of the crop thickening the skin.

If you do the AS or baking soda let the chick digest some of this first to help clear out the intestines of old or harmful food in the digestive tract. The feed 1/2 the [normal amount of formula] with yogurt and spice mix mixed in.

[If this does not solve the problem] there is one thing that will get movement in the intestinal tract....which is Sub-Q (subcutaneous) fluids. (Must get supplies from a vet, and have them show you).

[If] you have any 'human' antibiotics on hand... especially Keflex in capsule form, I have found this antibiotic is great with babies having crop problems.

Help! How do I empty the crop?

WHY do I need to empty the crop?

NOTE: If you have never emptied out a crop, please have your vet or an experienced breeder show you how to do this. IF done improperly you can damage the crop wall, and/or risk aspirating the baby

When I notice the first indications of a slow crop I will empty out the food from the crop. It is **IMPORTANT** to do this, and **THE FIRST STEP** to quickly restore crop movement. **WHY?** If the food that is in the crop is soured it will also contain yeast and/or bacteria. When you are adding to what is in the crop this contaminates the new food. As this food is digested not only is the intestinal tract absorbing nutrients from the food it is also absorbing any pathogens such as yeast and/or bacteria

Position to manually empty the crop

NOTE: If the contents of the crop are thickened dilute with 1cc of A-S or B-S solution to thin so that it is easier to get out of the crop
Let the baby rest THEN flush out the crop

Hold the baby cradled in your hands as shown, with head facing down. Use your fingertips to massage/work from the base of the crop to gently push the food up the neck and out of the mouth. Once done turn the baby so that it is facing you and look at the mouth. IF NEEDED: Have a Q-tip ready to wipe out any excess formula in the mouth

BE CAREFUL don't rush

Hold head firmly in place

CAUTION
While emptying the crop keep the neck fully extended
Do NOT let the crouch down
WHY? Because the crop contents can be pushed up the neck, into the throat, and aspirate the baby/bird

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If the baby is not digesting the food 'must' come out. The illustrations below contain important information. And the crop will need to be flushed. The illustration below answers the most common questions.

How do I flush a Crop?

WHY must I do it?

What can I use that will work?

Sodium Bicarbonate is actually an antacid and acts as a systemic alkalizing agent is highly soluble and reacts almost instantly with the hydrochloric acid (in the Proventriculus/Gizzard) to form carbon dioxide, salt and water. Carbon dioxide is absorbed and reconverted to bicarbonate in the body. I have used a form of **AS** (abbreviated) sodium bicarbonate, which is an ingredient used in Alka-Seltzer. **BS** (abbreviated) Products such as Alka-Seltzer, baking soda, and vinegar help towards balancing alkaline (sodium bicarbonate and citrate) levels or increasing acidity (acetic acid, vinegar) which inhibits the overgrowth of yeast

Dissovlve 1/2 tablet in 4 oz warm water

Tube feed 2-3cc of solution into the crop

Pull the solution up-down to agitate/mix

SUCK this out of the crop REPEAT

Crop Wash Solution

Dissovlve 1/2 tsp in 1/4 cup warm water

Alka-Seltzer ORIGINAL

ARM & HAMMER Pure Baking Soda
America's #1 Trusted Baking Soda Brand

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A few cautions... Be very careful when flushing or emptying a crop. This illustration shows what to do if the baby is aspirated and acting quickly.

Asphyxiation

means depriving of oxygen that can result in death
May occur from aspiration of formula into the respiratory tract

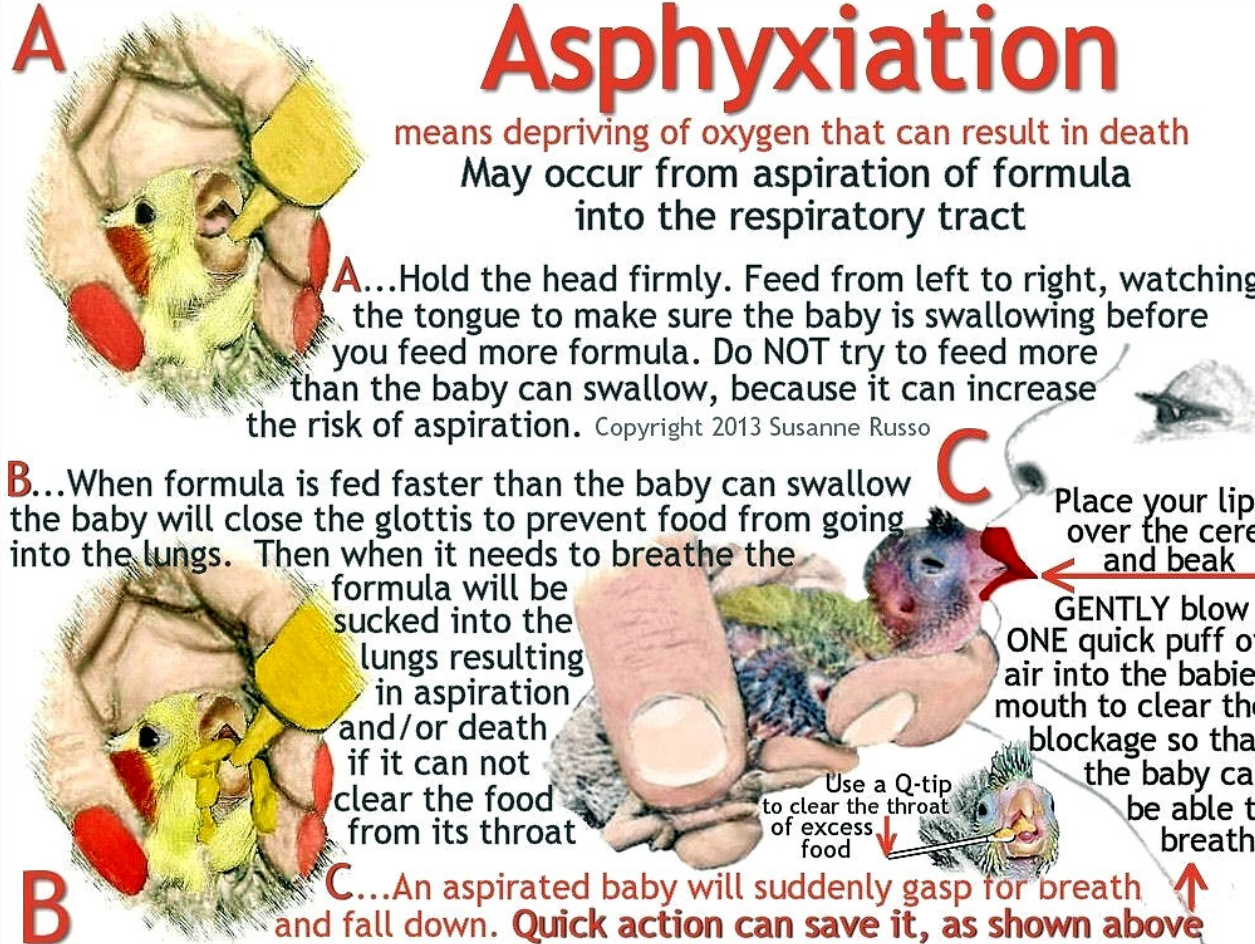
A...Hold the head firmly. Feed from left to right, watching the tongue to make sure the baby is swallowing before you feed more formula. Do NOT try to feed more than the baby can swallow, because it can increase the risk of aspiration. Copyright 2013 Susanne Russo

B...When formula is fed faster than the baby can swallow the baby will close the glottis to prevent food from going into the lungs. Then when it needs to breathe the formula will be sucked into the lungs resulting in aspiration and/or death if it can not clear the food from its throat

C...An aspirated baby will suddenly gasp for breath and fall down. Quick action can save it, as shown above

Place your lips over the cere and beak
GENTLY blow ONE quick puff of air into the babies mouth to clear the blockage so that the baby can be able to breathe

Use a Q-tip to clear the throat of excess food



Other ways a baby can aspirate are less obvious.

For example, once the baby learns to fly never feed it before it takes off to fly. Let the baby fly first. The reason for this is if the baby crashes, and lands wrong on its crop the food can gush up the neck and into the throat. If the baby takes a breath, it will inhale the formula into the lungs. Another scenario would be several babies in the brooder. This is fine because the babies will share body heat, and it is comforting to them to be in with other babies. What you do not want to see is one baby jumping and climbing on top of another baby. WHY? Because if the baby's foot steps on the lower neck or crop area this can make the formula gush up the neck and into the throat.

If you suspect aspiration act quickly with 'Supportive Care'

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Help! I aspirated the baby



**GOOD
BEST**



Herbs for SUPPORTIVE care

Use Spring Water
My vet had advised me the FIRST thing that should be done when there is a respiratory problem is to get Vit. A into the bird ASAP. Over the years I have used some natural remedies with excellent results

UNIVERSAL DOSAGE for ANY extracts or capsules
3 drops PER 30 gr of body weight

Make a stock solution

2cc water
3 drops each
Astragalus
Vit A, Aloe
Elevampene
Dandelion

EXTRACT

10cc water
1 capsule each
Elevampene
Dandelion
Carotene

CAPSULE

Glass jar to store stock solution
Good for 1 wk
Refrigerate

Immune Support

NOTE: These remedies can be used as a stand alone treatment or mixed with the formula

3 drops PER 30 gr. of body weight

Stock Solution
2cc water
10 drop
Astragalus
Aloe




Use ANY brand name
NOTE: ALL these can be ordered online or found in a health food store

Diuretic
This herb will help to remove fluids from the lungs





I have updated my Sour and Slow Crop Remedies article. Many of the above illustrations were made for this update. There is a lot of helpful info in the article that should help to avoid slow/sour crop, and many new remedies.

<http://www.justcockatiels.net/sour-and-slow-crop-remedies.html>

<https://web.archive.org/web/20170715160404/http://www.justcockatiels.net/sour-and-slow-crop-remedies.html>

I've also updated my Spice Remedy. BOTH Spice Remedies are effective. The reason why Turmeric was added is for babies with advanced problems that are at risk of the yeast and/or bacteria going systemic. The Turmeric acts to inhibit pathogens from being absorbed in the digestive tract, and also protects the liver.

Any brand of spices can be used



Mix in a small glass
1/8 tsp of spice mix to 2cc Water

NOTE: Optional a pinch of Probiotics or Yogurt, and Brewers Yeast can be added separately to the formula if the baby appears pale or stressed.

What has worked for me with positive results...
Each chick is given a 1/2cc (.5cc) 2 times a day for 5-7 days...OR...If I am hand feeding a lot of babies I will mix 1/4 teaspoon PER 1/2 cup of formula 2 times a day.

This combination of spices will help cut down on the yeast and bacteria by means of inhibiting overgrowth while boosting the immune system, and providing nutritional and supportive care to the digestive tract, body and organs.

NOTE: If no change in 24 hours, go to a vet, ASAP

SPICE REMEDY

Mix the following and store in a small jar or pill bottle

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2 tsp Garlic Powder
1/2 tsp Cinnamon
1/2 tsp Ginger
1/2 tsp Turmeric

Use by:
NOTE: this mix is good for 1 month

The spice remedy is designed as a supportive treatment rather than for any antibacterial or antifungal properties

Emergency Toe Splinting

EMERGENCY TOE SPLINTING

*****WE ARE NOT VETS, BUT CAN OFFER ADVICE IF YOU CANNOT GET TO THE VET RIGHT AWAY. ALWAYS SEE YOUR VET!!!!*****

if you cant get your bird to the vet in time or you cant afford it, this will help you. the sooner the toe is aligned, the better chances of saving it.

signs to watch for:

Infection: redness, pus, abnormal warmth

Loss of circulation: blackening tissue, cooler than the rest of body

what you need:

Aloe vera

Cayenne pepper

saline solution or warm water

band aids

q-tips

scissors

What you do:

prepare your supplies

wash the toe with the saline, if you cant get saline, warm water will do in a pinch.

cut the q-tip to the length of the injured toe. leave a little room extra at the claw tip

cut the bandaid into little butterfly bandage type strips, try to cut them half centimeter thick, you need at least 3

align the toe as straight as you naturally can.

try to place the q-tip along the side without the open wound. you will want to keep it visible so you can observe it for signs of infection and so you can clean it daily.

wrap the strips of bandage on the toe and splint, securing the splint to the toe. you want one at the base of the toe at the bottom of the splint, one in the middle, and one around the claw/nail holding the bent part of the toe in place. make sure bandages are secure but not tight to restrict circulation.

now that the splint is on, rub aloe vera on the wound to soothe it and disinfect it. cayenne pepper can be used as well.

I myself have gone through this and used this method with my own own cockatiel when he got his toe nearly bitten off by another bird. his toe was dangling by just a bit of skin. the sooner the toe is

aligned in this type of injury, the sooner blood flow will return to the toe, thus the better chances they won't lose it. However, toes in birds have poor circulation compared to mammals and losing toes are a risk. If the toe starts dying off, it will drop off eventually on its own. Keep watch for signs of infection and loss of circulation as these are your biggest worry, a slightly crooked toe is not a concern compared to these!

Disclaimer for Emergency Stickies

We are not vets. Information provided here is based off of experiences by experts and members here who have compiled this information to provide immediate help to bird owners in crisis. We advise you to please see your vet should any emergency or injury arise. The purpose of these threads are to provide emergency options until you can seek vet care.

Blood feathers - what they are and what to do about them

Blood feathers are new feathers growing in. The process in which a bird sheds old worn feathers and grows in new ones is called molting. New feathers grow in as blood feathers. These are easily distinguished against normal feathers. The new feather grows in the sheath which in a blood feather is dark or light depending on the colour of the bird. Darker birds have darker blood feathers and lighter birds have reddish colour blood feathers. **DO NOT CUT THESE.** If cut or broken they bleed and it is possible for a bird to bleed to death.

If a blood feather is broken it needs to be removed. Bleeding nearly always occurs with broken blood feathers and if left alone, the bird may keep knocking the painful feather and causing more bleeding and possibly infection. Broken blood feathers are scary to most bird owners but eventually down the line, everyone deals with them.

The most common causes of breaking blood feathers is nightfrights (night time panics that cause a bird to thrash around in the cage), poor wing clipping, crash landings, and trying to fly with several isolated blood feathers. Blood feathers mostly occur during heavy molts but keep in mind that some birds molt year round. The most common blood feather breakages occur in the wings but it does happen in the tail too.

If you clip your bird's wings, keep in mind to be watchful of blood feathers. If the bird has one blood feather, leave a full feather intact next to it and clip them again when the blood feather is finished growing. If there are several, skip clipping for a few weeks. As mentioned above about the isolated blood feathers breaking, this is often a result from clipping. If a blood feather is left alone with no feather next to it, it is exposed to breaking and is very easily broken.

A pin feather is usually a body feather that grows in. These technically are blood feathers but are much smaller and less likely to break. You can see pin feathers especially during a heavy molt and the bird may be covered in them. They look like little flaky white pins all over the bird's body. Frequent bathing during a molt will really help with the discomfort of these feathers and help with the drier skin of the bird.

If a bird breaks a blood feather you must remove it. If you feel queasy about it, pack on Kwik stop or corn starch into the the bleeding feather and get the bird to a vet as soon as you can. If you are

sure you can remove it and feel confident about it, you need tweezers and Q-tips or a clean paper towel. Keep these in a first aid kit at all times. Have a second person on hand if you can (if you can do it on your own and know you can, go for it, but if not go to the vet) and have them restrain the bird. Remember, do not hold the bird's chest tightly. Try not to restrain the bird's chest at all. Spread the wing with the broken blood feather and take the tweezers and pinch the blood feather as close to the skin as you can. Grab this firmly. Gently but firmly pull the feather shaft out of the skin. Make sure the follicle has been removed (it will look like a soft bubble-like thing on the bottom of the feather sheath) or else the bird may still bleed and can get an infection or other abnormalities.

After the feather is removed, you need to apply pressure onto the bleeding follicle. Take a Q-tip or paper towel (I personally prefer Q-tips as they are easier to apply to the direct spot) and press it into the wound. Keep it pressed into the wound until the bleeding has stopped. After it has stopped, wet a new Q-tip and clean the area thoroughly. The bird should be fine after. If you happen to have bird anti septic cream, you may want to apply a small amount to the follicle with a Q-tip. Cayenne pepper powder can be used as well.

The bird may hold the wing funny for a few hours to a few days, that's fine. Some birds hold the wings out longer than others, some don't at all. If your bird holds his wings out funny for longer than normal, bring him to the vet as there could be infection or part of the feather still under the skin. Keep checking the feather follicle daily until a new feather grows in. Keep watch for pus and abnormal swelling, especially a week later as it could be a feather cyst from follicle damage. These usually need vet attention and shouldn't be removed at home. They are extremely painful and will need anesthetic to be removed and cleaned properly.

A feather cyst results when a feather gets trapped under the skin and becomes ingrown. It curls up under the skin and becomes an infected mass which swells under the skin. It is possible for the feather cyst to die off and be pushed out by a newer feather. The photo below is of a cockatiel with a suspected feather cyst that was pushed out by a new blood feather. It was later removed.

Blood feathers breaking too many times can damage the follicle which causes feather cysts, permanent feather abnormalities, and even the possibility of never growing in new feathers. Blood feathers are not a laughing matter in birds and can be out right dangerous. But the bird owner should be prepared and not scared of them. Please be aware of these during molting times and keep a good careful eye on them.

Note: sometimes problems with bleeding wing feathers do NOT involve blood feathers. When a bird panics inside the cage (frequently from a night fright), it's common for wing feathers to get knocked loose as the bird thrashes around inside the cage. Other types of accident can also cause wing feathers to get knocked loose. This may cause bleeding at the point where the quill attaches to the flesh of the wing. But if it is a fully grown feather it will not have a blood supply inside the quill, and it is not an emergency situation unless the bleeding is heavy.

In the case of heavy bleeding from a loose feather that is NOT a blood feather, you can pluck the loose feather using the same procedure described above for blood feathers. If the bleeding is light you can let it heal naturally. The loose feather will usually fall out eventually (it could be a few minutes or a few days) but sometimes it will heal back into place. Until the problem is solved one way or another, the bird is likely to squawk, complain, and hold the wing away from the body while preening the wing in an unhappy manner, usually after it has just folded the wing up after stretching

or flying. This is a sign that the loose feather is causing discomfort because it is somewhat out of place, but it isn't a serious medical problem.

Setting Up a Hospital Cage

Every bird owner will eventually face the issue of having a sick or injured bird. This will mean the bird will need to be restricted to a safer and more comfortable enclosure.

This is where a hospital cage comes in handy.

A hospital cage can be either a small travel cage or an aquarium. Birds with wing or foot injuries will do better in an aquarium where they cannot climb around. Just be sure the lid has plenty of ventilation.

A heat source should be provided, but not enough for the bird to overheat. A heating pad can be set on low under half the hospital tank or cage, however heat lamps should be used very carefully or avoided if using a tank. A heating pad is the safest choice if using an aquarium.

Covering part of the cage provides warmth, protection from drafts, security, and privacy. It is ideal to cover part of the hospital cage so that the patient can recover in a secure and warm environment.

Food and water needs to be very easily accessible for the patient and should be placed where they can get to it. Placing spray millet on the floor of the hospital cage is a great food to keep up energy and placing it on the floor makes it easier for them to eat in their weakened state. Sick or injured patients may not eat much and it is very important that they eat, even if it is a treat food. If they will eat it, let them have it--it is better than letting them starve themselves.

Perches should be low to prevent climbing around and to preserve precious energy. It makes it easier for the patient to get around without using up energy in its weakened state. Aquariums do not have an easy perch option, so many bird owners find rolling up a tea cloth and laying it on the floor to be the best option. Lining the cages with soft fleece or tea towels is best as it keeps the patient warm, comfortable and safe from further injury.

A favourite toy or mirror can be placed to help comfort the bird in their time of need, but try not to clutter the cage.

Some examples of a hospital cage are shown below:

Male cockatiel with broken toe, restricted to a padded "tank" type hospital cage

A Heat lamp is good for hospital cages.

General Info and Training

Introducing A New Tiel

Cockatiels are a bit like potato chips, you can't have just one! But the prospect of introducing a second cockatiel to your spoilt and people orientated baby can be a bit scary! Here's how i do it, hopefully it will be helpful if you're thinking of adding a second or even third, fourth, etc cockatiel to your flock!

Always remember to quarantine any new bird for a minimum of 30 days in a separate cage and a separate room to any existing birds. This is VITAL to prevent the spread of disease in your flock. No matter where you bought your bird from, please do not take the risk - ALWAYS quarantine!

After a 30 day quarantine period of juggling your time between two or more birds, i'm sure your eager to get them all together so they all get more time out. However, it's important to take things slowly.

I always start any birdy introduction with meeting through the cage bars. Once the quarantine period is over you can put the cockatiels cages side by side so they can get used to seeing each other. They will probably be curious about their new neighbour, and may sit on the side of their cage which is closest to the other cockatiel.

Next you can get them out one at a time, and let them climb over one another's cages with the other safely behind bars. As long as they're not trying to kill each other through the bars you can probably start getting them out for supervised play time together.

I find that the first play session together goes smoothest with a nice millet spray to break the ice. Everyone is too busy scoffing millet to be too bothered to bite the new friend, or pull their crest. A good first playtime leads the way to a good friendship!

After this point you need to move at your cockatiels' own pace. You will want to start letting them go in the same cage during the day, and once they're both entirely happy with their new friend you can start leaving them together unsupervised, and finally full time living together. For some cockatiels this may only take days, and others may need to make the change gradually over a few weeks. You know your tiels, and they know when they're comfortable! So watch them, and read their body language.

As long as you don't push the relationship, introductions should go smoothly and without too much drama!

Good luck.

Basic avian glossary:

Blood feather

A new feather that has not finished growing in and still has a blood supply.

Cere

A new feather that has not finished growing in and still has a blood supply.

Cloaca

The common chamber into which digestive and urinary wastes discharge.

Crest

The long feathers on the head that raise or lower according to mood. Cockatiels and cockatoos are the best known examples of parrots with crests.

Crop

Thin-walled, elastic sac in the esophagus where food is temporarily stored and can be regurgitated to feed chicks. In parrot chicks that have just been fed, the crop is an obvious rounded, distended pouch.

Egg bound

Potentially fatal condition in which a hen is unable to expel an egg that has become lodged in lower oviduct or cloaca. Poor nutrition, stress or laying too young are thought to be possible causes.

Feather picking (or plucking)

Removal of feathers by the parrot, usually attributed to boredom, stress or dietary deficiencies.

Fledgling

Young bird that has feathered but is still being fed by its parents.

Flight feathers

Specialized contour feathers found on wings and tail. Long, primary flight feathers are attached to what would be the equivalent of our hand area; shorter, secondary flight feathers are attached to the "forearm" area.

Going light

Commonly used to describe unexplained weight loss in a bird.

Hospital cage

Relatively small, temporary, specially-equipped box to isolate and warm a sick bird. Usually completely enclosed by solid walls except for the front and equipped with a built-in heat lamp for keeping the temperature between 30 degrees and 32 degrees Celsius.

Molt

Periodic shedding of feathers, which are subsequently replaced by new ones.

Papilloma

An infectious, herpes-like virus that usually appears as a small, raised pink or grey cauliflower-like mass in the vent, mouth or throat.

Parrot

Colorful, tropical bird characterized by the ability to mimic; a stout, hooked bill; thick, tubular tongue; two toes pointing forward and two backward for climbing; and presence of powder down.

Most of the 300-plus species of parrots in the world today originate in Indonesia, Central and South Americas, and the Caribbean.

PBFD

Psittacine beak and feather disease. An infectious virus that strikes mainly young parrots and kills the cells of the feather and beak. Infected birds grow deformed feathers and may succumb to secondary infections, including hepatitis.

Pinfeather

A feather just emerging through the skin.

Pinning and flashing

Commonly used to describe the rapid alternate shrinking and dilation of a parrot's pupils when it sees something highly interesting to it.

Powder down

Specially modified down feathers that grow continually during a bird's life, the outer edge disintegrating into a fine talc-like powder.

Preen gland

Gland at the base of the tail that a bird "dips into" during preening to oil its feathers. Also thought to be a source of vitamin D.

Preening

Using the beak to smooth and restore to position flight feathers that have become separated.

Psittacine

Of or relating to parrots.

Psittacosis

A curable infectious bacterial disease of birds marked by diarrhea and wasting. Also known as parrot fever, chlamydiosis, and ornithosis. Infected birds can be cured with tetracycline or another broad-spectrum antibiotic. Psittacosis can be passed to humans where it results in flu- or pneumonia-like symptoms.

Scaly face

Inflammation and rough, scaly growths caused by a parasitical mite that burrows the skin area around the beak and eyes, and occasionally on the legs and toes. Most common in budgerigars and can deform beaks if left untreated.

Spray millet

Branch of a small-seeded grass often sold as a parrot treat.

Vent

The external opening of the cloaca.

Taming - lpererry82 version

I have noticed alot of people asking how to tame them

Here is what i do

When you first bring them home let them settle for a day

Leave your hand in the cage for 15-20 mins per hour and talk calmly keep doing this untill s/he doesn't back away from your hand

After s/he is used to your hand slowly move towards her but if s/he backs away wait untill s/he is calm and then try again

When you get next to him/her offer your finger or hand to him/her

I always say up when i put my hand out to them

You could do this with millet in your hand or any other treat

What i also find that works to is take their seed out the cage and place some on your hand and if they are hungry they will have some (Im cruel i know lol)

Also patience is the key and take your time... there is no rush since you have many of years together

QUESTION

Can you tame a wild bird?

ANSWER

Ask Dumpling (3yrs old) & Big mac (2 yrs) they belonged in an aviary for all that time

Trust Exercise

<https://youtu.be/NTiYpobrG8Q>

Food Bribery

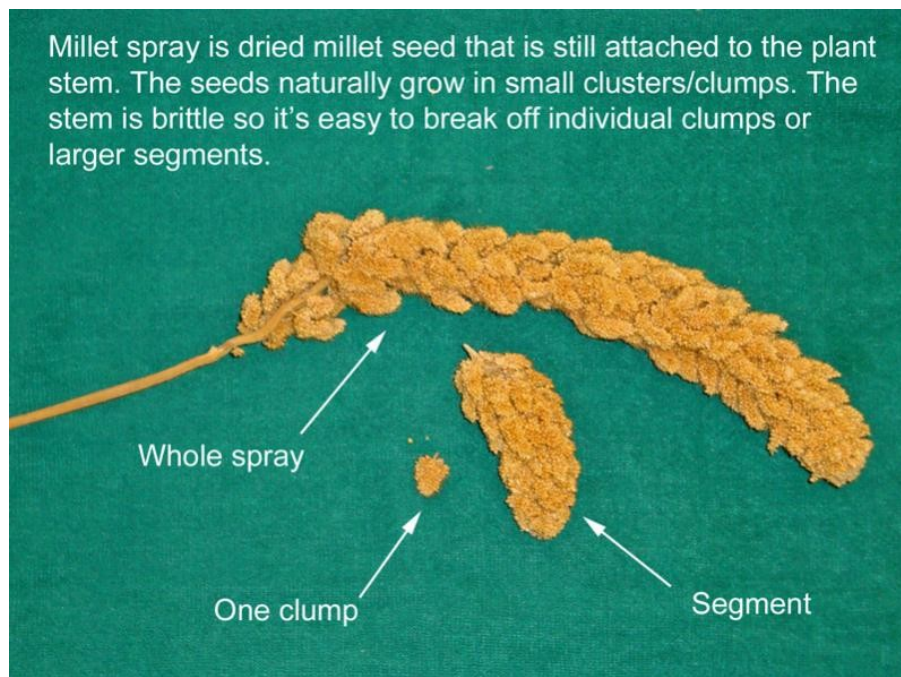
Food bribery is an excellent way to speed up the bonding process or get an untame/unfriendly bird to develop a better attitude toward you. It's somewhat similar to positive reinforcement, but you are basically using the treat to lure the bird instead of using it to reward an action that the bird initiated on its own.

Step one is to find a treat that the bird really likes. Millet spray and sunflower seeds are popular favorites that are also nutritious and healthy, and your bird might have a unique favorite of its own. Don't keep this treat in the cage all the time for the bird to eat, because you want it to be something special that comes only from you. There are several stages listed below; start at the one your bird is currently ready for and gradually work up to the others.

1. Drop a small treat (like a small clump of millet spray or one or two sunflower seeds) in the bird's food cup every time you approach the cage and make sure the bird sees you do it. A picture of millet spray is attached at the bottom of this post for anyone who isn't sure what it looks like.
2. Hold the treat up to the cage bars for the bird to take from your fingers.
3. Hold the treat in your fingers for the bird to eat without cage bars between you.
4. Hold the treat in a position where the bird has to step on your hand to reach it.

This technique can easily be adapted to accomplish other goals. For example, if you want the bird to learn to come out of the cage you can put the treat right next to the open cage door and gradually move it further and further outside the cage. If you want the bird to learn to play in a new area, put some treats in that area.

Cockatiels think that millet spray is about a thousand times more delicious than the loose millet that's in regular seed mixes. If you want to use millet spray as a bribe you should still keep your bird's ordinary seed mix in the cage. There's probably a lot of millet in the seed mix, but it won't interfere with your food bribery plan because it isn't the special millet that cockatiels crave the most. But if you're using sunflower seeds you can remove any sunflower seed that's in the seed mix. Millet seed is a more important part of your bird's diet than the fairly high-calorie sunflower is, and needs to be available more often.



With standard positive reinforcement training the reward would be one or two quick bites from a piece of millet that you are holding. With food bribery you let the bird eat longer to get used to the idea of eating from your hand. It can be helpful to take the millet away before he's finished and then offer it again right away; the idea is to make him feel disappointed when the hand goes away and happy when it comes back. This helps develop a positive attitude toward the hand.

Some birds adapt to a new home very quickly but it's very common for the settling-in process to take two months or even longer.

Buying a Cockatiel: What to Look For!

Pet Shop, Breeder or Rescue

I have cockatiels from all three of the above options, so i hope i can shed some light on where to go for a cockatiel! I will begin with looking at pet shops vs breeders. So many sources will say always go with a breeder, never go with a pet shop. This is easy to say, but in my opinion it shouldn't be taken as 100% set in stone. It is much more important to judge each pet shop or breeder individually.

Many large chain pet stores are undesirable sources of birds. They stock their birds from bird mills which are essentially breeding farms which are solely run to mass produce birds and make a profit. Good breeding and health are low priority. They often put their prices up because the birds are a certain mutation or they are "hand reared". Babies reared at bird mills aren't necessarily tame. It is not the feeding that makes the birds friendly, but the socializing and in a mass producing business they just don't get the time to socialize with the people who rear them.

I have found that smaller, family run pet shops are much better choices. Many source their birds from local breeders or even breed their own birds. They often have a smaller supply of healthier and friendlier birds. I have bought several birds from local family run pet shops with very few problems.

Breeders are often better sources, but while there are lots of responsible ones there are plenty of bad ones too. You should be able to visit a breeder before purchasing a bird so that you can look around and judge for yourself if you're happy with the standard of care their birds are receiving. Obviously if they have dirty cages and sick birds, you are unlikely to be buying a healthy bird.

For me, the BIGGEST warning sign of an irresponsible breeder is if they are willing to sell unweaned babies. A responsible breeder would NEVER do this, ever. Under no circumstance whatsoever. When people breed birds they are taking responsibility to care for the babies until they are ready to go to a new home. Selling them before they're eating independently is not waiting until they're ready. Any breeders I've visited have told me straight up that they DO NOT sell their babies before they're weaned. In many states in Australia (and i'm sure many other countries) it's actually illegal for breeders to sell babies unweaned. It is a MYTH that to bond with a new owner the baby needs to be handreared by them for a length of time.

What To Look For

- bright eyed, healthy looking birds
- clean, smooth feathers

- active birds
- knowledgeable staff/breeder
- good diet provided
- clean caging

What To Avoid

- breeders selling unweaned babies
- fluffed up, quiet birds
- dirty caging
- seed only diet provided
- cramped cages

I hope this has been helpful to people. If anyone wants to make a suggestion to anything else that should be added just let me know. I'm happy to add to this over time!

Before you make the Commitment..

- Cockatiels may require medical care. Have you planned in your budget for emergencies?
- If you rent, have you checked to be sure that you are allowed to keep a cockatiel?
- What will you do with your cockatiel during vacation time?
- Cockatiels generally live from 7 to 10 years. Are you prepared for this commitment?
- Young children should not be left unsupervised with cockatiels. Will you have the time to spend with the children and their pets? Will you teach them to treat the birds gently and carefully?
- Do you have other pets to consider before bringing a cockatiel home?
- Cockatiels moult. Are there allergies in your family?
- Will a cockatiel fit into your home and lifestyle?

Checklist

Housing

- Adequate sized bird cage (larger the better)
- Heavy food and water dishes (or water bottle)
- Perches of different diameters (natural branches)
- Paper lining for easy cleaning (lines bottom of cage)
- Stand for the cage
- Cage cover

Food

- Cockatiel seed and pellet mix
- Fresh water
- Fresh, washed vegetables and fruits
- Cuttle bone (minerals)
- Mineral block

Supplies

- Multiple toys (swings, mirrors, ladder, bird bath)
- Good book on Cockatiel care
- Nail clippers
- Styptic powder
- Bath dish or plant mister

Vet Care and More

- Annual check-up
- Emergency medical care
- Vacation care

A couple more things to add from personal experience

1. Try to avoid buying a bird looking ill out of pity. You are only setting yourself up for heartache and promoting people who sell such birds. This applies to every pet in fact!
2. Make sure your family is on board when you decide to bring home a bird. If only more people took this advice, there would be far fewer abandoned pets!
3. Learn about the species in advance, so that you don't have unrealistic expectations of it. For example, if you buy a female cockatiel expecting it to talk and it doesn't, it might result in a frustrating time for both you and the bird.

The Captive Foraging Thread

The Captive Foraging Thread aims to offer an introduction to what captive foraging is and how it can benefit you and your parrots, a quick guide to bought toys, and the basic parts to make homemade ones, a guide to teaching your parrot the basics of foraging, a list of websites and articles about foraging, and a place where members of Talk Cockatiels can share foraging toys and photos.

What is Captive Foraging?

In the wild, all animals spend a portion of their time searching for food. This is known as foraging. Captive foraging is when pet owners (as well as zoos and wildlife parks) provide the animals in

their care with the opportunity to search for their food, rather than just filling a food dish for them. There are many different ways to present your parrot with foraging opportunities and this thread aims to give you an insight into captive foraging, teaching your parrot to forage and to share ideas and pictures with other Talk Cockatiels members.

Why is Captive Foraging Important for your Parrot?

The parrots we keep in our homes are essentially wild animals, although the majority have been bred in captivity. They have not been domesticated like cats, dogs and farm animals. As a result, the pets in our homes are exactly the same as their wild counterparts, with the same instincts. Foraging is a great way to enrich your parrot's life, using their natural instincts to stimulate them both mentally and physically, and prevent boredom which can lead to behaviors like feather plucking and excessive screaming.

A wild pious flock were followed and their daily routine recorded. They would awaken at dawn (6 am at the equator) and forage until 10am. From 10am to 2pm, the flock would gather together to rest, preen, nap and socialize together. To end the day, they would forage again before going to roost as it got dark (6pm). This example shows us a wild parrot flock spending two thirds of their daylight hours in searching for food. In pet parrots, this has been replaced by a full food dish, and 15 minutes sitting at it eating. As a result, behavioral problems resulting from boredom are not uncommon in pet parrots. Captive foraging is designed to give our birds a more natural way to eat and pass the time. I have taught my small flock of parrots to forage, and have found that they, especially the cockatiels, preferred to forage for their food, even when they had the option of just eating from a food dish, despite the food they were foraging for, being exactly the same as the food in the dishes. To me this illustrates how important foraging is for our parrots, and demonstrates how much they enjoy it.

How do Parrots Forage?

In the wild, different species of parrot foraging in different ways and at different heights. Some, like cockatiels and budgies are ground foragers, while others, like conures, forage at different levels in trees. This can give you a starting point for foraging, encouraging your parrot to use its natural instincts. You can also teach your parrot to forage at other levels, for example, a cockatiel will climb to the top of its cage to reach a treat, or a conure go down to the bottom to forage on the cage floor. The more different foraging techniques you teach your parrot, the more different options you can offer them.

What do Parrots Forage For?

You can use anything your parrot eats or plays with as a foraging reward – pellets, seed, millet, nutriberries, pumpkin seeds cinnamon sticks and dried chilies are just a few examples of dry food items that can be used. Wet food can also be used, but only use it if you're sure your parrot will be able to find and eat the food before it spoils. You can also use favorite foot toys, like shredders and munch balls as foraging rewards.

Buying Foraging Toys

There are many foraging toys on the market that you can buy for your birds. When buying foraging toys, you need to be aware of the size of the toy and of your bird. A lot of the toys on the market are designed for large parrots like Amazons and Macaws, and require strength or large feet to manipulate them, which small parrots like Budgies, Cockatiels and GCC may not be capable of. As always when buying toys, you need to be aware of the size of them, and whether they have any holes that are likely to catch heads, beaks, toes or nails. Some great toys that I would recommend for all parrot owners are the Nutcase and Foraging Sphere. Piñatas are another great toy on the market, although if you don't mind a little mess, they are easy and fun to make yourself. Spears/skewers/kabobs are another great toy. You can simply hang fruit/veg on, which will sway away from your parrot as it tries to eat, or you can use them to make more complex toys. The advantage of buying toys is that you can get ones made of acrylic and plastic that are long lasting and come in styles that it is not possible to make yourself.

Homemade Foraging Toys

Foraging toys are cheap, easy and effective to make at home. They can take minute up to an hour or so to make, and the number you can make with relatively few parts and expense is astounding. Some basic foraging toy essentials are:

- Wooden blocks and beads
- Paper – shredded and sheets (any paper that is not glued or shiny – like magazine paper – is safe)
- Paper plates/card
- Plastic beads (make sure these are too big to fit in your parrots beak, and too tough for them to snap)
- Dry Pasta
- Leather strips and seagrass, cotton, sisal or hemp cord
- Cable ties

Any foot toys that your parrot enjoys playing with are great for using to fill foraging toys. A few foraging toys described in the following post will need other parts but these can generally be bought for only a few pounds.

Teaching Your Parrot to Forage

Parrots are very intelligent birds and can be taught to forage at any age. Some will jump straight in and understand everything very quickly, others will take longer to get the hang of things. If your parrot is tame, letting them watch you set up their foraging toys is a good way for them to learn how to get the food out. A good way to start is with their natural instincts or a using a behaviour they already do as a starting point. For example, some birds will walk around on their cage floor. For birds that enjoy playing on the floor, a foraging tray can be a great starting point. The link will take you to my blog post, with photos of a foraging tray and many things you can put in it. To make a foraging tray, you'll need a good sized flat dish, with sides an inch or two high. For mine, I've used

a plastic drip tray, meant for sitting potted house plants in. In this dish, scatter a treat, like some seeds (a teaspoon or less should be plenty). Place the dish on the bottom of the cage or play gym, making sure there are no perches directly above it. Leave it there until your bird is comfortable with it, and has learnt to associate it with food (refill it and wipe it down as needed). Once they've eaten everything in it a few times, half cover the bottom of the dish with dry pasta. As your parrot gets used to this, you can add to the tray, by increasing the amount of pasta, adding wooden beads, blocks, stones, and foot toys, so they have to dig down a bit and push things out of the way to get to the bottom. It's best to go at the speed of your own parrot – some will adjust quickly and be digging through the complete setup in a couple of days, others may need several weeks before they're confident enough to do it. I also do this with my birds food dishes now they're comfortable with it.

Another favorite for foraging is wrapping a treat, like a nutriberry, in a piece of paper. Using a small rectangle of paper, roll it around the nutriberry, (so the nutriberry is in the middle of a tube of paper) and twist both ends closed, so it looks like a sweet. To begin with you can now rip a small hole in the paper, so your parrot can see the nutriberry, but still has to rip some of the paper away to be able to eat the whole thing. Once your parrot gets used to this you can stop ripping holes in the paper. At this point, you can also wrap up wooden beads the same rough size as the treat, and mix them all together so your parrot has to rip them all open to see if it's a treat or a fake. This adds a challenge, and they can be used in most foraging toys.

Another style of foraging is to hide the treat under toys. Foraging cups is an example of this. To teach your parrot how to do this, you can use any container. Show your parrot the container with a treat at the bottom. Once they're used to the idea that the container holds a treat, place some wooden blocks and beads at the bottom, with the treat, but make sure the treat is still obvious. Again, wait until your parrot is comfortable with this before moving on. The next step is to put one block on top of the treat. Hopefully your parrot will move the block off and find his treat, but if not, lift the block off the treat, and show it to him, then replace the block on top. Repeat this until your parrot is comfortable finding the treat under one block, then move on to two. This step should be easier for your parrot after they've got used to moving one block. Slowly bury the treat under more and more wooden blocks until the container is full. You don't want your parrot to get discouraged or bored by not finding its reward as quickly as it expects. Once they're happy with this, you can increase the number of containers. We have three paper cups, a coconut and a hanging bucket for this. Every morning, Lofty empties them, throwing wooden blocks and beads all over the cage floor. Every day we put a treat in one of these, and occasionally we put a treat in two or three, so every day, our cockatiels go around and empty all five, instead of just stopping once they've found the first treat. Again, this toy can take anything from half an hour to a month to introduce to your parrot, depending on the speed they pick it up at and their confidence.

Websites

The Parrot Enrichment Website

<http://www.parrotenrichment.com/> - This website is run by Kris Porter, the author of the Parrot Enrichment E-Books

Parrot Enrichment and Activity E-Book v.1

<http://onafricanwings.com/Parrot%20Enrichment%20and%20Activity%20Book.pdf>

Parrot Enrichment and Activity E-Book v.2

https://web.archive.org/web/20120313082248/http://www.phoenixlanding.org/PEAB_V2.pdf

Foraging on Avian Web

<https://www.beautyofbirds.com/foraging.html>

Livejournal Captive Foraging Community

<https://captiveforaging.livejournal.com/>

Companion Fids

<https://web.archive.org/web/20081121061813/http://www.companionfids.com/enrichment/enrichment.htm>

Foraging for Parrots - The ideas in this blog are for Eclectus Parrots, but can be scaled down

<http://foragingforparrots.com/>

Cheep Parrot Toys 'n' Tips - As above, toys may need to be scaled down (or less tough materials used)

<http://www.cheepparrottoysntips.com/foraging.html>

Avian Enrichment

<http://www.avianenrichment.com/learn/instinctual-needs/foraging>

<http://www.avianenrichment.com/learn/instinctual-needs/foraging/why-foraging-is-important>

<http://www.avianenrichment.com/learn/instinctual-needs/foraging/foraging-strategy>

<http://www.avianenrichment.com/learn/instinctual-needs/foraging/why-does-my-bird-waste-food>

Articles

Holistic Bird Foraging Article

<https://web.archive.org/web/20150218181029/http://www.holisticbirds.com/pages/foraging0203.htm>

Best in Flock Foraging Post

<https://bestinflock.wordpress.com/2009/06/08/captive-foraging-for-parrots/>

Foraging Behaviour in Companion Parrots - from LafeberVet.com

https://web.archive.org/web/20130908015612/http://lafebervet.com/downloads/education/Foraging_Behavior.pdf

Phoenix Landing Parrot Care - Foraging is about halfway down the page.

<http://www.phoenixlanding.org/parrotcare.html>

Foraging for your Birds Heath - PDF from the Raleigh-Durham Caged Bird Society

<http://www.rdcbs.org/Portals/0/Documents/Give%20Em%20Some%20Foraging%20to%20Do!.pdf>

<https://web.archive.org/web/20120206160950/http://www.thegabrielfoundation.org/documents/ForagingforFood.pdf>

About Cockatiels

Cockatiels are a very laid back mellow species of parrot. They are peaceful, nonaggressive, and gentle. This is why many pet owners seem to have the misconception that they can be caged with other species. This can result in disaster. In some cases, pet owners think it is cute that their cat seems to like their bird and they have them out together, even ride around on the cat's shoulder. Same with dogs.

If you take time to think of what can happen, maybe you would think twice. Cats, dogs, rabbits, guinea pigs, rats, ferrets and some reptiles are all potentially dangerous to birds. Besides the obvious claws and teeth risks, there is also the risk of deadly bacteria.

Predatory animals are an obvious risk. Cats, dogs, rats, ferrets, and snakes are common predators of birds. If you have these pets in your home, please keep your bird well away from them. Rats can and often do prey on birds, and will try to injure the bird or even kill the bird. If a bird lands on a rats cage, the rat can bite off the foot or toes of the bird, and they too can carry deadly bacteria to birds. Ferrets will hunt birds. They are a natural hunter of birds and they are fast and determined. Snakes can potentially hunt birds, particularly larger snakes, but salmonella can be a potential risk in some reptile species including turtles and some lizards, and snakes.

Bacteria is a silent killer. Pasteurella is a main killer. A bird infected with pasteurella will die within 24 hours if proper antibiotics specifically for pasteurella are not given. Cats, dogs, rabbits, guinea pigs, rats, and most rodents carry pasteurella. Pasteurella is carried naturally in the saliva of such species. Thinking that your tiel is safe on the back of your cat's back is not a good idea. Cats (and other animals for that matter) lick themselves clean, therefore the saliva gets on the fur, the claws, etc. If your bird preens the cat or other animals, it can ingest the bacteria and become very ill. If your bird tries to eat or drink from the same bowls as such animals, your bird can get ill.

Larger animals also pose a risk of stepping on a bird, therefore this should be avoided. Getting stepped on could break bones, cause internal damage, or kill a bird. Large dogs are more likely to step on a small bird.

Fish tanks can potentially be a danger. If the tank does not have a lid, a bird can easily fall in and drown, so be very careful about having fish and cockatiels in the same room. Make sure the lid is secure and the bird cannot get in.

It only takes one second, one freak chance that something can happen, no matter how laid back or how well trained any animal is. In that split second, your bird can be gone. It is not the predator's fault, it is in their nature.

Other parrot species can be dangerous to cockatiels.

It is very unlikely to house a cockatiel with any other species without problems.

Species you are likely to have the LEAST problems with are:

- Cockatiels
- Lineolated parakeets
- Grass parakeet species such as Bourkes and Red-rumped.

Budgies most often do not do well in the same cage, better chances of housing them together are in aviaries. Budgies often bully cockatiels who are pushovers. Even if the budgie does not outright attack the cockatiel, the budgie can bully the cockatiel away from food and water and this can result in the cockatiel starving. You should never breed cockatiels with other species, including budgies, in the same cage or aviary. Other species are known to take over the nest box and kill eggs and babies. Budgies can also nip the ankle of the cockatiel and bite the main artery and cause the cockatiel to bleed to death.

Lovebirds and parrotlets are small, but very aggressive birds who can injure or even kill a cockatiel. NEVER cage a cockatiel with either of these birds. Even if they are fine one day, your cockatiel could be badly injured or killed the next. They do not know the word "share" and will not want to share cage space with another bird. Even if you allow out of cage time with these species, be very careful and always supervise.

Larger species is a dangerous mix. This includes anything from a conure, rosella, cockatoo, ringneck to macaw. Larger birds often have a LOT of power behind their beak. The larger of species could even kill a cockatiel in one bite to the head. Some think that even if raised together as babies they will be OK, but they fail to realize that birds, especially parrots, are ruled by hormones. As they grow up, the hormones get worse and worse, and many larger species are very aggressive when hormonal. For months or even years a cockatiel may be OK with another parrot, but once that parrot hits maturity, they will get aggressive, moody, and territorial and can potentially take their frustrations out on the cockatiel, or perceive it as a threat to its territory and attack it. Even out of cage time with larger species can be dangerous. ALWAYS supervise out of cage play time if you allow both out together. Large parrots can bite feet and legs off of birds and do worse damage to the body or even kill a small docile parrot such as a cockatiel. Never house them together, no matter how well they seem to get along. It only takes one argument for the cockatiel to lose.

The following script was quoted from: <http://www.exoticpetvet.net/avian/top10.html>

Quote

5. Other Animals

uld never be left unsupervised outside of the cage, especially if other animals, including other birds, share the same house. Even if a pet dog or cat has acted completely trustworthy around a , it should not be trusted. Many birds have died as a result of another housepet either "playing" too exuberantly with a bird, or from the pet biting or stepping on the .

For example, a client of mine had recently purchased a young military macaw, Kelly. Their medium-sized dog had been introduced to the new baby, and it had reacted with interest, trying to lick and sniff the bird. They hadn't even owned Kelly for one week when, left unattended for just a moment to answer the phone, the dog bit through the bird's beak, causing severe bleeding and injury to the still soft beak. Luckily, Kelly survived the bite, and with time, the beak has regrown

and now appears quite normal, but the owners spent many anguished hours, not to mention a lot of money, working with me to keep the beak tissue infection-free, as it healed.

Birds may also injure each other. Lovebirds are notorious for nipping the toes of birds housed in neighboring cages. Toes are the most commonly injured body part, and bleeding may be serious, and even fatal. Especially with the onset of puberty, birds that previously got along together, may begin fighting, with fatal results.

Any animal bite should be considered extremely serious, possibly life-threatening. The bacteria found in the saliva and the mouth of a mammal can cause fatal septicemia (infection in the bloodstream) of a bird in very short order. Cat bites should be considered the most dangerous, as the Pasteurella bacteria commonly found in the feline mouth, are extremely hazardous to birds. Even a simple puncture by a tooth can result in a fatal infection. Scratches from claws are also extremely dangerous, as the risk of infection is very real.

What To Do If You Lose a Bird or Find a Bird

The warmer weather brings about more risks to bird owners. Windows are left open, doors are opened as people come in and go out of their home. Accidents happen where a bird flies out an open window or open door. Or, worst case scenario, they bring their bird outside without a harness or cage and the bird flies off. A clipped bird can still fly away!

Should you lose your bird, there are several things you can do.

If the bird remains in the area you can try to coax them down with a favorite treat or toy or even a friend of theirs. If possible some people have had success with spraying the bird down with a hose, but keep in mind sometimes this scares off the bird, so do not use this unless last resort.

If the bird leaves the yard and you can no longer see them, play calls from your bird species from YouTube or other sound playing device. Sometimes the bird will hear this and come back.

Leave their cage outside with the door open and food and water inside. If you have other birds, do not do this with them inside it, place them in another cage to prevent them from escaping. If you have other birds, place them in a closed cage outside as well, they may attract your lost bird back.

Post lost ads anywhere you can. Online and vets are great places to post, and so are pet stores. Many times if someone finds a bird they will bring it to the vets or pet store. So those are good places to post an ad. Search lost ads in case someone found your bird. There are some online sites that are specifically used for reporting lost and found birds. Check into these and post on them and check them daily.

NEVER give up. People have found their lost birds in a matter of hours, days, months and in some cases even years after their bird was lost. Never give up, always keep looking because you may never know, someone may have found your bird.

If You Find a Lost Bird...

If you find a lost bird and catch it, place it in a cage with no other birds (quarantine) with fresh food and water and allow the bird to rest. They will likely be scared and will need some quiet time and rest.

Address any problems, such as injury as soon as you can, most of these will require vet check ups.

Post a found ad at stores, vets, and online. Make sure you have the right owner for the bird, don't make the ad super detailed, leave major identifications out of the ad and ask the person to describe their bird, and ask them if their bird had this feature (for example, band numbers, old injury, deformity, certain color pattern, etc). This way you can guarantee the bird is going to the right owner. Some birds look the same, so it isn't always possible to do so. Some injuries do happen after the bird escapes as well so this may not be the most fool proof identification.

Keep looking for the owners as they may be looking for the bird still. Report the bird to your local humane society and your local vets, report it online, just get the word out there that you found a lost bird.

People often are very upset about losing their bird and would want nothing more than to find their beloved pet. It is the right thing to do for the bird to try to search for the birds owner(s). The bird will be missing its old owner and the owner will be missing their bird. So please always, always get the word out there. Of course, if no one comes forward for a few months, you can consider keeping them, but it is still a good idea to keep an eye out.

Ways To Prevent Escape

Check windows and doors prior to letting your bird out of the cage.

Make sure the birds cage is securely shut should you have windows open or doors open. Always be sure the cage is secure if you bring the cage outside. If the bottom is not secure on some cages the bottom can fall off and the bird can escape that way.

If your bird is a known escape artist, make sure locks are on the cage and are secure before the bird has any chance of escape outside.

If you bring your bird out on a harness, be sure the harness fits securely and make sure the harness is in good condition so the bird cannot get out of it.

Never bring your bird outside without a cage or harness, even if its wings are clipped--clipped birds still do escape and with the right conditions can go very far.

Places to check for lost birds and to post ads for lost and found:

<https://www.parrotalert.com/>

<https://www.craigslist.org>

<https://www.kijiji.ca/>

<http://www.911parrotalert.com/>

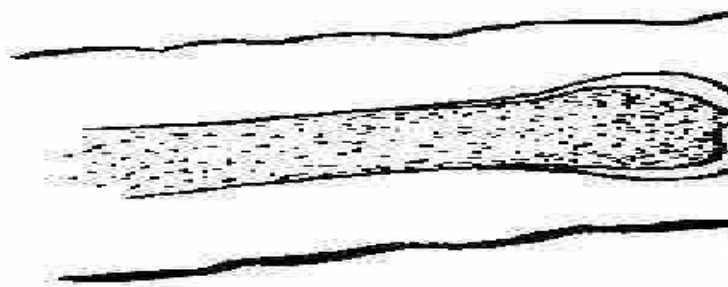
Nail clipping 101

Cockatiels' toenails grow continuously, just as human fingernails do. Wild cockatiels come in contact with a lot of rough surfaces during the course of their daily life, which keeps the nails worn down to an appropriate length. Life in a comfortable human home is usually much easier on the toenails, so most pet birds need to have their nails clipped periodically.

A concrete perch in front of a food cup or exposure to some other rough surface will help wear the nails down naturally, but it probably won't completely eliminate the need for nail clipping. Most of your bird's perching should be done on other types of perches because nonstop contact with rough surfaces is bad for the feet. You can place clean rocks in the bottom of the cage or some other area where the bird likes to hang out to provide some natural-style abrasion. Use rocks that have a fairly rough surface, are not wobbly and don't tip over easily (to prevent pinching accidents) and are not easily chipped for grit-eating purposes.

It's time for a trim if the bird's toenails are getting caught in carpet or cloth, are so long that they interfere with the bird's ability to grip a perch or make the fleshy part of the toe lift off the ground when the bird stands on a flat surface, or are so sharp that it's painful when the bird stands on your skin. If you don't want to clip the bird's toenails yourself, you can have it done professionally by an avian veterinarian. Some pet shops will also trim nails (and wing feathers too) for a fee, but the experience level and work quality of the store employees could be very good or very bad. So if you go this route, ask questions about previous experience before you let them work on your bird. One advantage of using a professional is that your bird will be annoyed at them, not at you.

It's also possible to clip your bird's toenails yourself, but it's a little more complicated than cutting your own nails. Unlike human nails, a bird's toenail has a blood vessel and nerve in it; this area is called the quick. When you clip the nail you have to avoid cutting into the quick because this would cause bleeding and pain.



Normal

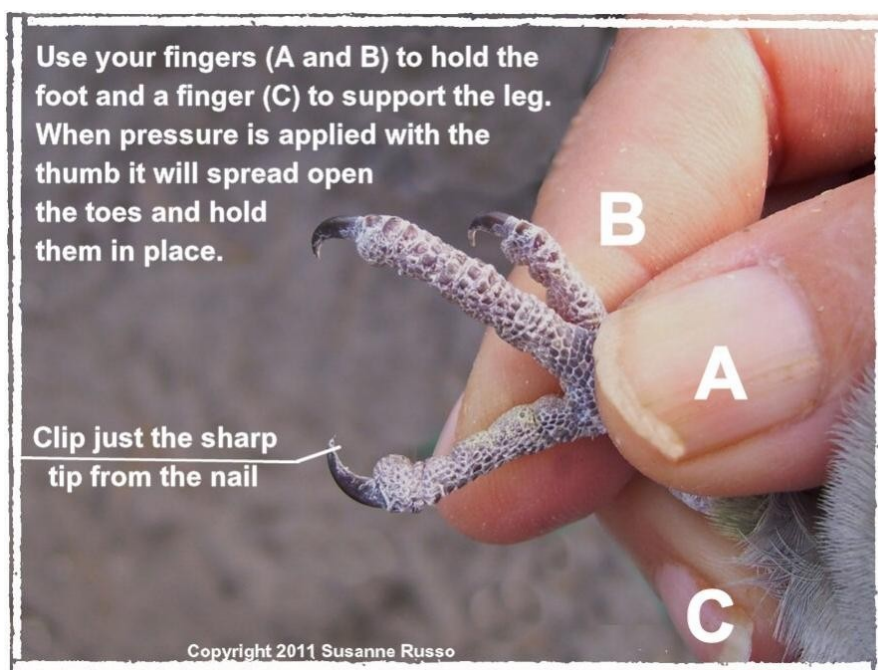
As the nail gets longer, the quick gets longer too. So if your bird's toenails are seriously overgrown, you can't trim them back to normal length all at once. Instead you will have to take the tip off, wait about a month, then take the tip off again, gradually reducing the overall length of the nails. The quick will gradually retract as the nails get shorter.

To clip your bird's toenails you will need the following supplies:

1. Nail clippers or scissors – equipment made for cutting human nails is OK. A nail file is also helpful for smoothing any rough edges. If you prefer, you can file the nails instead of cutting them but this will take longer than clipping.
2. Flour, cornstarch or styptic powder (Kwik Stop), to pack into the nail to stop the bleeding if you accidentally cut into the vein. Have this out and ready for immediate use.
3. A small towel or light cloth to restrain the bird and prevent it from biting you. It is very helpful to use two people during this procedure: one to hold the bird and the other to clip the nails. If another person isn't available, you'll have to find a way to keep the bird in a comfortable, stable position while you cut the nail. I fold up a big towel and tuck it into a box so that it makes a sort of cradle, then wrap the bird in a small towel and lay the bird on its back in the cradle. Done properly, this reduces the wriggling a lot.

Wrap the small towel around the bird's body so that the wings are pinned to the body and not very useful for flapping and wriggling. Be careful not to put pressure on the chest; birds don't have a diaphragm and they can't breathe if their chest can't move up and down. It may be desirable to cover the bird's head as well, since birds tend to calm down when it's dark and it also makes it a lot harder for the bird to bite you. But be sure the bird is getting enough oxygen. If a second person is holding the bird and they have good bird-handling skills, it isn't necessary to cover the head. Instead this person can hold the bird lying on its back in the palm of their hand; the towel is optional, but if it's used it should be between the bird and the hand. The bird's neck is in the V between the person's index finger and middle finger. The fingers stretch the neck out slightly so the bird can't twist around and bite, but be careful not to strain the neck. The thumb and the remaining fingers gently restrain the wings and body.

In any case, leave the towel open enough that you can get hold of the bird's feet. This collage by srtiels shows the proper way to hold the foot:



Now you're ready to clip. Hold the clippers/scissors with your dominant hand and the foot with your other hand. Once again, the most important thing is to avoid cutting into the vein that's in the nail. If your bird has light-colored nails the vein will be easy to see in good light. If the nails are dark you can't see the vein and will have to guess, but if you just take the very tip of the nail it should be OK. There is frequently a white "scuff line" near the tip of the toenail that serves as a good "cut here" indicator.

While you're clipping the nail on one toe, be careful that you don't nick the flesh of the other toes, which may be squirming around and sometimes getting into the danger zone. Half of the toes point in a direction that is very convenient for your dominant hand; the other half of the toes point in a less convenient direction, and it might be helpful to change your own position or the bird's position when you're ready to do those toes.

If you accidentally nick the vein, pack the flour, cornstarch or Kwik Stop into the nail with your fingertip to stop the bleeding, or stick the bleeding toenail into the powder to get the same result. When the bleeding is under control, it may be desirable to stop, let your bird calm down, and finish the clipping some other time. Your bird's heart beats faster when he/she is agitated, and this speeds up the flow of blood.

When the clipping is done, it's a good time to do something nice for your bird so he/she will quickly forgive you for the manhandling that you just delivered. Tasty treats, sweet talking, and maybe a little head scratching will reassure your bird that you're pretty nice even if you do get a little grabby sometimes.

The nail tips will be blunt for a few days after clipping so it will be harder for your bird to grip some surfaces. But don't worry, the nail tips will regain their sharpness before long.

Teaching Your Bird How to Fly

Many people get a bird already clipped, and often this bird is clipped before it fledged, meaning before it learned how to fly. This is a common practice unfortunately and often creates problems for the bird.

A bird that was clipped before it fledged often tries to fly but ends up falling backwards or spiraling to the floor and can crash land. The bird will often have a lack of confidence and will be very clumsy. Many birds will also lack the muscle development that flighted birds have and can often become emotionally insecure.

What can you do to help this situation?

Step One:

The bird must grow the flights back. When the bird starts to molt them back in, do not clip the bird and allow the flights to grow back in. The bird may start flapping on its own at this point, but if not you can have the bird sit on your finger and gently drop and raise your hand, making the bird flap. Do not do this rough enough that the bird falls off or seems scared, take it slow and stop if the bird shows signs of being tired. These include panting and wings drooping. Stop the exercise and let the bird rest in his or her cage for the time and allow them some water.

Step Two:

The bird should have most of its flights before this is attempted. Pull blinds down over the windows and close the door to the flight training room. Place a blanket around the area you are working in case the bird falls. This will create a soft spot for the bird should he or she crashes. Turn ceiling fans completely off and be sure the room is safe. You will need spray millet or a very much loved treat.

Step Three:

Now that the bird's area is safe from accidents as much as possible, it's time to start the training. Hold the bird on your hand. Place the treat of your bird's choice on the "target". It is easier to start off with a bed or wide flat surface. Show your bird the treat. Have the bird hop off your hand to the target. If they land safely, allow them to have the treat. A hop should include one flap, but if this is still too much for your bird, simply have the bird hop down. This will show the bird what it needs to do.

Step Four:

Once the bird grasps the idea, take a step back. The bird should try to flap to the target. If they land successfully on the bed/target let them have the treat. If they do not land successfully, move back to step three. Once the bird can successfully land on the target you may move farther back. Should the bird miss a step, you will need to go back to the step before. This step teaches the bird how to fly forward and practice some proper landing, but the landing is still on a very wide surface.

Step Five:

Eventually your bird should be able to land on the target from as far away as possible. Once your bird is able to do this, you can move to different locations to make your bird have to turn in flight to get to the target. This will improve the maneuverability in flight. Try many different areas so the bird has much practice.

Step Six:

Once your bird can land every which way onto the wide target, you can start using narrower targets such as a perch or playgym or cage top if you had not been using that before. These will help teach your bird how to land on different diameters and will be the final step in teaching your bird how to fly.

I myself have used this method with my own bird Dally as she was clipped before she fledged and she often injured herself falling backwards. Using this method, she became our best and most accurate flier.

How To Get Your Cockatiel To Bathe

We've seen lots of questions on how to get your cockatiel to bathe. I've decided to consolidate everyone's methods that they use into one to explain how it is done.

First. The Bath Dance.

The bath dance is when a tiel opens their wings and begins "rolling around" as though water is dripping on them. If you ever see your tiel doing this and there is no water around, they are telling you that they want a bath. If you are giving them a bath and they begin to do this, they are in the mood for a bath so keep doing what you are doing!

A Shallow Dish

Some birds like to bathe themselves and you can offer them a shallow dish of warm water to roll around in. This can be a glass bowl, or a large tupperware container, etc. As long as it is bird safe material, not too deep for your bird, and your bird fits(wings will be expanded during bathing so be sure to account for that), you can use it as a bathing dish. You can add something interesting (like a toy) to the water to catch your tiel's attention if they ignore the dish at first. This is great for curious and playful birds, because once the tiel gets in the water to examine what you have put in the dish, they discover the water! And then you can hope your tiel will get the idea and they will start bathing themselves.

Misting

Misting is the most commonly used approach to bathing your birdie friend. Most people choose to buy a regular spray water bottle from the dollar store or any other store. (I got mine at Walmart for .94) Please make sure the bottle you buy is new and has never contained a harsh chemical or any substance other than water. Some people buy the motorized mister that you can get at pet stores specifically for birds. This can be reused with regular water and is very helpful for people with large flocks so they don't have hand cramps after spraying so many tiels! The motomisters are little expensive and unnecessary, so if you only have one or so tiels- it is cheaper to just buy a regular spray bottle. If you do not feel comfortable getting your bird out their cage to mist them, you can mist them in their cage. If you are comfortable with your bird being out of the cage for a bath, place them in an area you don't mind getting wet and mist away. Please use warm water in your spray bottle. Cold water being sprayed can be uncomfortable in an air conditioned house for a bird. It has been said that the best technique for spraying a bird is from above so the water falls down on them. This way they are not getting a harsh spray to the eyes or nose. If your bird is accepting of the mist spray, they will open their wings and begin the "bath dance." If they are not happy about being misted, they will run from you.

In The Shower

A lot of people who fail with the shallow dish method and the misting method often wonder, how else can I get my tiel to bathe enjoyably? One method that a lot of us have great success with is the shower. Yes, the shower. It is better for you to try this if your bird trusts you enough to climb into a tiny space and get wet with you without getting scared. The best method for allowing your tiel to bathe is to position him so that he only receives the edge of the mist of the shower or holding them outside of the spray of the shower and letting the water bounce off your hand and on to them. (Illustration below) You can also sit your tiel on the bottom of the tub and point the shower head high up at the back wall of the shower. The water then falls down the wall and into the tub. They also get the fine mist water that doesn't make it all the way to the wall and that bounces off the wall.

This is great for showering multiple birds at once. If your tiel does the infamous "bath dance" then you know they are enjoying showering with you. When in the shower, some tiels will close their eyes, sway, and just enjoy the water instead of doing the "bath dance." This is known as the "the shower trance." It's perfectly safe and your tiel is just really loving his shower.

If your tiel is not accepting any of these methods, we have had a member (Sunshine2009) suggest playing thunderstorm noises while running the shower. She has had success with this as they accepted it and began to bathe.

Basic Cockatiel Care

To get things started in the Cockatiel Articles i thought it would be a good idea to cover some basics of cockatiel care. I'll talk about what I've learned about housing, feeding, entertaining and generally keeping your cockatiel happy.

First things first, your cockatiel will need a cage to call it's own. When i was researching cockatiels before i became a tiel owner i found varying opinions on what size a cage should be for a single cockatiel. Personally i feel that the minimum cage size a cockatiel should be kept in is approx. 18"d x 18"h x 30"w. Obviously your cockatiel will appreciate as much space as you can give it, the bigger the better! Bar spacing for cockatiels should be no larger than 5/8". For a longer lasting cage it's a good idea to look for a powder coated cage. These are slightly more expensive but will last for ages and are rust free. Definitely worth the extra money! The cage should be kept clean for your cockatiels hygiene. Cage floor lining (paper towels, newspaper, etc) should be changed every day or two and once a week everything should be wiped down and scrubbed if necessary.

Once you've got a cage, you need toys and perches to fill it with and to keep your cockatiel entertained during the hours it's confined to it's cage. What toys and perches you use is entirely up to your preferences, but remember that a variety or perch sizes/textures is important to keep your cockatiel's feet in good shape. You should avoid harsh textures like sandpaper covered dowel perches. I would recommend using rope perches, cement perches and natural branches (safe wood only of course). In my experience i've found that cockatiels like to shred things, so it's a good idea to put some toys that can be shredded in your cockatiels cage. This can be as simple as a cut piece of paper, or as fancy as a parrot pinata. Either way, something to chew is always a welcome toy in the cage. While it can be fun to find lots of new toys and perches for your cockatiel try not to make the cage over crowded or cramped. Keep some things aside and swap them around every week or two.

So you've got a cage, and you've filled it with things for your cockatiel to do! Now you need to think about what to feed it. I feed my cockatiels a mixture of seed, pellets and vegetables. I will also feed them cooked foods like egg, legumes and wholegrain rice or pasta from time to time. You will want good quality seed and pellets, both of which can usually be found in your local pet store. You want to avoid foods that have lots of preservatives and added colors. In particular you need to avoid the preservative ethoxyquin as this is extremely harmful to your bird. Never feed your cockatiel chocolate, alcohol, avocado or apple seeds. Also avoid foods high in sugar and salt. If it's not good for you then it's certainly not good for your cockatiel. Offer your cockatiel fresh veggies everyday. Some examples of good ones to try are: broccoli, carrot, sweet potato (cooked), dark leafy greens (spinach, bok choy), and other similar vegetables. Avoid watery ones like celery and lettuce as these

can give your cockatiel diarrhea. At all times your cockatiel should have access to a mineral block and fresh water.

That's pretty much the basics, with one exception: playtime! Cockatiels are social birds and will want to spend as much time with you and your family as possible. You should aim to have your cockatiel out of the cage for at least one hour a day, but I'm sure that you'll find you want to spend much more time with it than that. Cockatiels can be extremely friendly and interactive members of the family. They enjoy kisses and cuddles and many love a nice head scratch from their favourite flock member. Male cockatiels are known to be rather talented whistlers which can provide hours of entertainment for everyone.

All in all, cockatiels are wonderful pets for anyone with the time and love to care for them properly. I hope you've found the information in this article helpful whether you have just found your newest flock member or are looking to find one in the future!

General Care FAQs

So you are interested in getting a bird as a pet but have questions about how to take care of one. This is a thread for frequently asked questions when people get a bird or when people are interested in getting a bird.

Where can I find a pet bird?

You can find birds in pet stores, at breeders, from rescues, or from advertisements online such as craigslist, hoobly, or kijiji. Just be sure to make sure the bird is healthy before bringing it home.

What kind of cage do I get?

Make sure the cage meets the minimum requirements at least and make sure the bar spacing is proper. The cage should be a square/rectangle type cage. Round cages are generally too narrow and many birds feel insecure in these type cages. Also with round cages, the bars meet at the top and the space becomes narrow. Feet, toes, and wings can get stuck and can seriously hurt the bird. Doors should be secure or made secure if your bird tends to know how to escape.

What do I feed my bird?

Birds need a variety of food in their diet. They should get seeds, pellets, fruits, and veggies. Some birds do not need fruit and some are fruit eaters. Pellets can be replaced with foods such as Nutriberries or Avicakes, and may be excluded from the diet if the bird's diet is varied properly and carefully. Some species have certain diet requirements, so please look into your species of bird and what it eats. Please also be sure to read about what foods are NOT good for birds.

What perches should I use?

The best perches are natural branches from bird safe trees. These vary in diameter along the same branch and they're more natural for the bird. These also naturally keep the nails from over growing and are a much better alternative to sand paper perches and other pedicure perches. Perches with sandpaper or sandpaper covers should never be used as these scrape the feet and cause sores and infection. Cement perches should be carefully used if used at all. These can damage the birds feet as well. These should not be a main perch (sleeping) as they are not good for birds feet. Rope perches

are excellent for birds and are great for comfort. Older birds or birds with foot deformities benefit from these perches as they are soft and have good grip. Watch for loose strings and trim any you may see. If the bird chews through the perch to the wire, the perch should be replaced. Dowel perches should not be used, but if they are used, do not use them as a main perch as these can cause foot problems for the bird. Plastic perches also can cause foot sores, but can be used in moderation. Swings and boings are great for many birds, especially birds who love to swing. Make sure they are securely hung in the cage, you don't want the bird to fall!

How often do I feed and water my bird?

You should feed your bird fresh food daily and change/clean their water bowl each day and each time during the day that they dirty their water. Dump the old seed out and refill it each day.

How often do I clean the cage?

Paper changes should be done every day or every other day, though if you have a grate, it can go for one week at the longest. A big clean should be done once a month. This includes washing down the bars, disinfecting the cage with a water-bleach solution, and completely washing down the cage and perches. At least once a week the grate should be washed down, if you use a grate. It may be easier to do if you wipe it down with each paper change. Toys should be cleaned of poop and food.

What do I use for bedding?

Newspaper is best. Plain paper can be used and so can paper towels, however, newspaper is the cheapest option for most people. Sandpaper should not be used as it can be harsh on a birds feet and if the bird ingests the sand they can get sick. Wood chips should be avoided. IF you do choose to use wood chips, use aspen or kiln dried pine and it MUST be changed daily. Wood chips breed bacteria and mold. Corn cob bedding should never be used as they can grow mold and cause aspergillosis. Sand can cause some issues as well.

Does my bird need toys?

Yes, your bird needs toys to keep itself entertained. A bird that becomes bored are prone to plucking and screaming. Just be sure to check toys for safety.

Do I get one or two birds?

This depends on you and your situation. If you can afford two birds and really want two birds, then this is your choice.

So you are considering pet birds, but you don't know if you should get one or two. Or, you have a single bird and are considering a buddy.

A common myth is that two birds will not bond to their owner.

If enough individual time is spent with each bird they will still have a bond with their owner. Each bird is an individual. Some birds are more bird oriented than others. These type of personalities do better with a bird companion.

Some birds are more human oriented and these birds are perfectly happy as single birds. As long as they get enough attention from their owners, these birds do just fine.

Some pros to two birds:

- Your bird has a constant buddy when you are not home.
- You get to watch how they interact together and play together.
- Your bird can learn to be a bird and learn more independence.
- You can curb some flock calling.

Cons to two birds:

- May not get along as expected.
- If they do get along, you need a bigger cage.
- If incompatible, they need separate cages.
- Twice the food ration.
- If one gets sick, there's risk of both birds getting sick--therefore higher vet bills.
- Injuries may happen.
- Jealousy.
- Unplanned breeding behaviours.
- Most birds double noise level.
- If incompatible, twice the time spent on each bird.
- Twice the toys.
- Disputes over territory.
- Twice the mess.
- More money for continuous upkeep.

There may be more cons listed, but the pros' quality outweigh the cons. Think of your situation and your bird.

Avoid getting a bird for your bird. If they don't get along, you now have TWO needy birds! You should get another bird if YOU want another bird.

If you are considering a buddy for your bird, it is less complex to stick with the same species. Different species should not be housed together, some species are more aggressive and dangerous than others. Even birds like lovebirds are known to kill other birds--including those larger than them.

Always prepare for things to not work out and hope for the best if you opt to get another bird.

How do I know if my bird is sick?

A sick bird may sit on the cage floor fluffed up and sleeping all day. It may not eat or drink and may act lethargic. It may not vocalize as much as it used to and it may not play as much. If it acts differently than normal it may very well be sick. Sick birds often show the first sign of illness in the droppings and it is very important to pay attention to the birds droppings each day to know what is

normal and what is not. If there is a change, it may be a cause for concern. If you are looking at a bird that you may want to bring home you should look for general signs. If the bird is fluffed up and not active, you may want to look elsewhere. Look at the other birds in the cage. If any act sick, you may not want to bring home any birds as birds hide their illnesses easily and any bird can be sick if one is showing signs. Check bottom of the cage to see the droppings, they should look normal. Look at eyes, nostrils, vent, feathers, and the bird as a whole. Plumage should be neat and smooth. Keep in mind birds do molt so molting birds can look a bit rough. Look for pin feathers on the body and this may be a clue that the bird is molting. The eyes should be clear, bright and open fully. There should be no discharge or redness to the eyes. The nostrils should be clear and clean with no swelling or discharge. They should not be clogged or dirty. The vent should be clean and should not have any stains or droppings stuck to the vent or feathers around the vent.

Can I get sick from a pet bird?

Yes, there are some diseases that birds can transfer to humans, though it is not common. The most common zoonotic disease that birds get is Psittacosis. Giardia is another zoonotic disease that can be given from birds to humans and other animals. Psittacosis is among the most dangerous to be transferred. If you suspect your bird gave you an illness, go to the clinic and let them know you have a bird and bring your bird to the vet.

How often should I let my bird out of its cage?

It should be let out daily for at least two hours a day. Birds enjoy company of their flock, and a single bird considers their owners their flock. This means you must give your bird attention. Parrots require a lot of attention a day because they are such flock oriented animals.

My bird won't try new food, what do I do?

To get some birds to try new foods such as veggies or fruit or even pellets can be very difficult. To get a bird to try new veggies, it may be worthwhile to try cutting them in different ways or hanging them in the cage in different places, or even sprinkle a favorite treat on top of the new food. A bird sees its flock eating and will want to try to be with the flock, this includes you. So try eating the new food in front of your bird, or at least pretending to eat the food. Offer the new food then to your bird. Keep offering the new food, they may eventually try the new food.

What behavioral problems are common in birds?

Plucking, screaming, biting, feather chewing, hormonal related behaviors, cage territorial aggression, bonding to one person only, paper shredding, and jealousy. Cockatiels are prone to screaming, hormonal related behaviors, biting, and sometimes jealousy. They can show other signs, but plucking and feather chewing are not as pronounced in cockatiels as it is in other species.

How to read leg bands?

Say you buy a bird from a breeder, store, or you find a bird and it has a band... the band can tell you things such as age, breeder, and state/province the bird was from, depending on the band.

Bands can also be color coded for the year, but this varies between countries and individual clubs the bands came from.

Most bands have a special number on them that identifies that particular bird, and often there will be a special code indicating a breeder code. ****Note, not all bands have a breeder code!****

Also most bands will have a single letter on them, this indicates the size of the band.

Say a band reads 473 N 10 AAC

473 is the identification number.

N is the size.

10 is the year.

AAC is the society/club the band originated from.

If your bird has a band, it is very important to remember and write down the numbers on the band. This will be very useful if your bird ever escapes as this will provide positive identification, however be aware bands can be removed with special tools.

Also, it is important for knowing the age (though not always a guarantee) of the bird. Especially important for breeders who need to know the age of their bird to assess if they are a good healthy age for breeding.

Keep in mind, open bands can be placed on a bird of any age and can be dangerous. They are prone to catching on things and the bird getting tangled in. If your band has a closed band even, be sure it's properly fitted and check it regularly for problems. If the bird injures the banded leg or foot, swelling with a band can cause severe damage to the circulation. Be aware that any band can get caught up in something but be sure to regularly check your birds band and leg.

When to separate birds?

Beaking. Nipping. Kicking away from food and water. Biting. Excessive plucking.

Do you know when it is too far?

Plucking is normal with some breeding pairs. But if it becomes to the point that one bird is becoming bald or starts bleeding, it is smart to separate the birds.

Nipping may be ok as long as there is no blood drawn. If blood is drawn, birds must be separated before one bird is severely injured. Blood loss can kill a bird.

Beaking is ok as long as it does not escalate. Beaking is when two birds sort of joust with their beaks in an argument over a toy, food bowl, or perch. If beaking escalates to biting or is excessive it is best to separate the birds.

Birds that cannot coexist in the same cage may seriously injure one another or kill one another. Please watch new additions carefully to watch if you need to separate your birds. Just because they are a male and female and/or the same species, does not mean they are guaranteed to get along.

Birds may bicker over food bowls, and if this is minor, this can be fixed. You simply provide more food bowls in the cage than the offending bird can protect.

Birds may bicker over sleeping perches. If this is the case, simply provide more perches at the same height. Give each bird their own space.

If a bird constantly chases the other, this can cause stress on the defending bird. Please separate the birds for the birds psychological health.

Always give each bird enough space and if they're known to bicker a bit, give them a little extra space than recommended for two.

Birds can be expected to bicker occasionally and this may not be a problem. But if one bird seems stressed or if there is blood and/or injury involved, it is best to separate the birds.

Always provide enough food and water for the amount of birds in the cage, provide enough space, toys, and perches for everyone.

Birds should be happy and safe in their cage, not terrorized and hurt.

Do's and dont's for bringing your new bird home

So, you've found that perfect feathered companion. You met those round soulful eyes and were hooked. The feathered bundle was playful and talkative and wanted every bit to do with you. So, finding this perfect bird, you bring him on home.

That lovely little spunky bird is now sitting still as a rock on his perch, not chirping, playing, or moving. He does not eat and does not drink. Now you start to worry if something is wrong with him.

Don't panic!!! Your bird is in a new environment. He was taken away from what he knew. He does not know where he is or if there are any scary monsters that might get him. Just let him settle for a few days, talking quietly to him unless it scares him. He may not eat for a day or so, this is normal and not to be worried about.

What can you do?

Blow on his seed bowl daily. If empty shells fly off, he has been eating when you are not around. Offer spray millet close to where he is perched too, so he can eat a tasty treat with more comfort in his new home. He may be too uncomfortable to go to his food bowl in a strange place.

Do not try to handle him right away. Let him get used to his new home. Sights and sounds are all new to him, and he needs to settle to make sure all is safe before he is comfortable enough to be that birdy you seen playing before.

Try to set up his cage as similar as you can to his last cage. It will make him feel more comfortable. Also, if you can, try to have the same food he was on at first (you can change it slowly later) so it too is something familiar and comforting to him.

Try to purchase toys that he has seen in his old cage so that he has something familiar with. If he is a rehome, ask about his likes and dislikes and try to make him feel more at home. The less change he goes through, the more comfortable he will feel.

Some birds take weeks to fully settle into their new home, some only take a few days or even a few hours. If your bird seems scared, just leave him be for a little while to get used to his new home and start playing and feeling safe.

Once he feels comfortable you can let him out and play with him and work on your new relationship.

If you have bought a recently weaned baby, please note that going to a new home can cause regression. The baby will not eat and will bob its head and beg for food. It will need to be brought back to the breeder to be handfed or else the baby could slowly starve to death.

Be sure you are buying a weaned bird of the appropriate age. Knowing what age the bird should be weaned at is part of the research of the species you should do before bringing the bird home. You do not want to bring home an unweaned baby.

It is a myth that handfeeding a baby bird will make it more likely to bond with you. This is not how parrot psychology works. A baby bird being handfed will see the breeder as its parent. Parent raised birds are reared by the parents and reach independence and leave the parents once old enough. A handfed bird is the same, they will soon want independence from the "parent", and this will mean less of a bond with the handfeeder.

Handfeeding babies is risky and should only be done by experienced individuals. You can seriously harm or even kill the baby if you do not know what you are doing, so please do not buy a baby unweaned. Do your research so you do not get conned into taking one either.

(added by Tielan) Hanging up some moist greens can help provide water if the bird is too scared to drink from the water cup. Nibbling on hanging food is less scary than sticking one's head into an unfamiliar cup, since it lets the bird eat and watch for danger at the same time.

Covering the cage on three sides might help the bird feel more secure since it only has to watch for danger in one direction.

If you have a recently weaned handfed baby, holding food in your hand will encourage it to eat and will also speed up the bonding process. Handfed babies associate human hands with food so eating from your hand seems natural to them.

Wing Clipping 101

Wing clipping is a very personal decision so this is only a guide to help those that have already decided they would like to clip.

There are some other options if you are not comfortable with doing this yourself but in the long run it'll save a lot of time and money. It's quite easy once you are use to it and you understand what you are doing. If after reading up on clipping, you are still not comfortable with your tiel and scissors then you can pay a vet to do it, visit a local pet shop or a breeder.

Here are some of the most popular reasons of why people decide to clip their tiels:

Safety

A lot of tiels are simply clumsy. There are a lot of hidden dangers in house designed for humans. Bumping into glass doors, mirrors, walls, getting stuck behind furniture, falling into aquariums, landing on a hot oven, chewing electric cords...the list is endless. Clipping your tiel won't stop their clumsy nature but it can prevent some accidents.

Another big part of safety is accidentally flying out the door. It can happen and has. It's very hard on the owner never knowing what happen to their tiel and the world is a big dark place. Tiels that have been use to humans feeding them and caring for them have little or no instinct left on how to fend for themselves. There are also other dangers such as becoming hawk food.

Taming

Some people choose to clip for taming purposes. A tiel that is clipped is a lot more dependent on you and that need can transform a wild tiel into a calm loving pet. Not all the time, but it can.

Damage control

Well, this speaks for itself. Clipping can help eliminate some of the damage a flying tiel can do at times. Some are more mischievous then others. Flying and breaking something by accident, chewing up that wooden ledge, blinds, and this list is endless too.

Now, I'd to talk about first aid. Although it doesn't happen often when done properly, some bleeding can occur. The only time this will happen is when too much of the wing is clipped and you cut into a blood feather. I will explain this further a little later. If bleeding does happen the most important is to stay calm, have the right supplies on hand and all will be OK.

The things that you will need to have:

Your cockatiel

without your tiel it'll be impossible

A SHARP PAIR OF SCISSORS (or a pair of nail clippers if you're nervous)

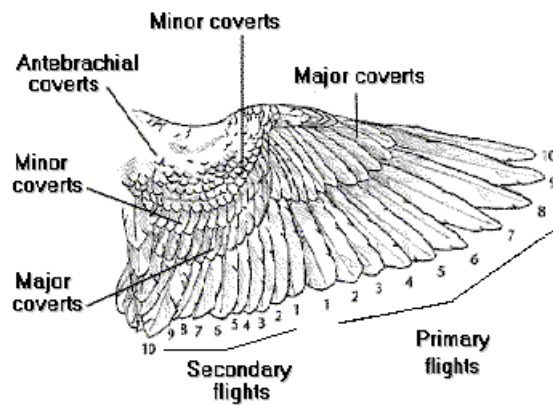
I use large kitchen scissors

FLOUR OR CORNSTARCH

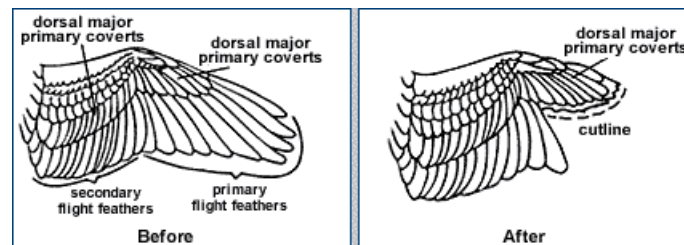
This is in case of bleeding- applying the starch helps clog blood a lot faster then normal and helps to prevent blood loss-blood loss is very dangerous as it causes the bird's temperature to drop. Either flour or cornstarch is fine and you can keep it in an airtight container to have ready just in case-you don't want to have to dip your tiel into your cake flour At this point you'll want to take a break and let your cockatiel calm down to help lower their blood pressure. Bleeding should stop right away but if for any reason it does not please call your emergency vet.

Now as far as how to hold your tiel...well gently- depending on how tame and use to this your tiel is you can either use a towel and take one wing out at a time or just a flat surface, extending one wing out at a time. This is where you have to know your tiel and find the option that works best for you. After a while they become very use to it and don't get scared at all. At first it may help to cover your tiel's eyes with the towel- birds use the what they can't see, can't hurt them theory and will calm down a lot more if it's dark.

SO now that that is covered you are ready to clip. Here is a diagram of the wing.



Now take a look at this diagram. Notice in the second picture where the cutting stopped.



Make sure you never cut above that- better take a little at a time then too much. Cut along the primary flights and not in a straight line. You want to clip enough where your tiel can still glide safely to the ground but not gain flight. When clipping these flight feathers, be careful not to clip any growing feathers. You will recognize these blood feathers from the others since you can see the dark blood area in the shaft. Also, if your tiel is molting keep in mind that all it takes is one primary feather on each wing to fly. You can choose to clip all flight feathers or leave a couple of the outer ones so your tiel can still fly, just not as high or as fast. When molting, you can either wait until your tiel is molted or do multiple clips as the feathers grow out. Either way, once you and your tiel are use to it, it'll become quite easy.

Make sure you give your tiel extra head scratches after!

Clipped VS Flighted--The Dangers of Both

People commonly believe a clipped bird is safer and that having a flighted bird means they will fly into a window.

While it is possible for a bird to fly into a window, its possible for clipped birds to do this either way.

A proper clip allows some flight still therefore if the bird panics, it can still collide with an object.

Dangers to a clipped bird:

- Being stepped on. Not being able to fly, a bird may find itself on the floor, where it is in danger of being stepped on by unaware owners.
- Inability to escape danger. A clip allows a bird some flight, but no speed or height. If i bird encounters danger, it may not be able to escape as easily as a flighted bird would.
- Not as much control of flight. Say a clipped bird "flew" into the kitchen... it cannot turn as fast or quickly to avoid landing on something it shouldn't.

- Escape risks. If a clipped bird escapes outside, it may not get as far as a flighted bird, but it is more vulnerable to predators.
- Injury. Falls happen much more frequently with a clipped bird. They may fall and if they fall on a hard surface, it can result in a bruised keel bone or even a broken keel bone and broken legs.

Dangers to flighted birds:

- Collisions. Flighted birds gain more speed and height and can possibly collide with a wall or window. Most birds learning how to fly or in a new home may collide with things but they eventually learn not to. A panicked bird will still have that dangerous chance of colliding, but a clipped bird can do the same.
- Getting places they shouldn't. Flighted birds get farther and go places a clipped bird can't. If you have something unsafe for a bird, a flighted bird may be able to reach it. Careful planning must be taken to avoid this.
- Escape. A flighted bird will go much farther faster than a clipped bird if it escapes outside.
- Ceiling Fans. These should always be off when you have birds in the room, but a flighted bird is more likely to accidentally come in contact with one of these and a running fan can kill a bird.

No matter which way we look at it, both have their advantages and disadvantages, both have the same amount of dangers, just different dangers. We, as the birds owners, must make the decision that best suits our own situations. Not everyone finds it easy to live with a flighted bird and not everyone can live with a clipped bird. We must make each environment as safe as possible and learn to avoid dangers from both sides of the argument.

Importance of Foraging

Birds in the wild search for their food. They spend the majority of their day foraging. In captivity, many birds do not have the need to forage, which leads to a lot of time on their hands, with which, they can get bored or develop behavioral problems.

Toys provide enrichment, and foraging toys provide even more. Simply even putting a small foot toy in your birds food dish makes the bird have to move the toy to get to his food. This is foraging. Hiding food in toys or wrapped in paper is foraging. The possibilities are endless with parrots. These birds are curious and intelligent and most love to forage and earn a good treat for the effort of looking. Food is a big motivator but small toys can be used as well.

Birds that scream or pluck may benefit greatly from foraging. It will keep them busy and distracted and it is a lot of fun for the bird. The bird learns how to manipulate a toy to get at a treat. You can get the bird to forage for vegetables. This is a great way to get your bird to try new foods. Simply hang leafy greens from the top of the cage or wedge carrots and broccoli through the bars. The parrot must climb to get to the veggies and will have fun eating their veggies in new ways each time. This can prevent diet boredom.

Giant wiffle balls make great foraging toys. Stuff carrot sticks and other larger veggies in the holes and hang in your bird's cage. They will have to hold the ball still if they are a larger bird to get at the veggie they want. Or, if they are a smaller bird, may even have to climb onto the ball to get at the veggie. These are cheap, fun, and washable, and can be used as a foot toy for large parrots such as macaws. These can often be found at dollar stores.

This is a video of the wiffle ball foraging and our little Mango:

<https://youtu.be/4RGIP2dCdqs>

Simple black and white newspaper used as a wrap can be a fun foraging tool. Wrap treats inside the paper like little candies and watch the bird have a riot ripping these to shreds to get at the goodies inside! Paper towels can be used as well and so can white plain paper. Dry treats such as millet or seeds do best with these types of foraging toys.

Paper cups stuffed with treats and foot toys make excellent foraging toys too. Good for larger and small birds, so long as the cup cannot get stuck on the parrots head! Foraging cups, which are cups with lids with a food on the inside of the cup are fun for many birds and are very popular. Clear cups make the best foraging toy for beginners as they can see the food inside.

Ice cube trays are another. Fill them with all sorts of goodies and wrap them in paper. Your bird, large or small, will have to shred the newspaper to get to the food. For beginner foragers, poking holes in the paper so the bird can see the food is a good idea. You can secure the paper with strips of fleece or jute rope.

Having a dish or tray in the bird's cage filled with buttons, drinking straws, paper, and foot toys and food are great for small birds. They love to dig around through the toys and bits of things to get to the food. These are a huge hit among ground foragers such as cockatiels, lovebirds, budgies, and grass parakeets.

If your bird has trouble learning to forage, try simple things first and move on up as the bird gets used to foraging. There are countless health benefits and psychological benefits to foraging. It prevents boredom, screaming, obesity, plucking, and teaches the bird how to be a bit more independent if you have an overly clingy bird.

"Mutual Agreement" Taming, A Helpful Guide to Skittish and Aggressive Birds

Birds are a lot like people in the way that they have different personalities. Some are bold and playful, others are shy and timid, while even some others are aggressive and finicky. Most taming guides are directed at the "average" bird. The taming guides are really good for the most part, but there are certain birds who need to be approached differently.

Positive reinforcement is noted to be one of the best ways to tame birds and many other animals. It uses good and positive rewards to show the animal what you want and like. Birds respond very well to this, and this has made it one of the most popular ways to tame a bird.

However taming is not always one size fits all. There are different ways to deal with a shy or aggressive bird. This guide focuses on those types of birds.

The main message of this guide is "mutual agreement" where you look at your bird's likes and dislikes and know where their limits are and you set a neutral ground with them.

Aggressive Birds

First I will discuss aggressive birds.

First you must look at what your bird is aggressive about. Many are cage aggressive. Working with a cage aggressive bird when trying to tame it can be very difficult, and a lot more work than an average bird. Many owners get frustrated and either give up on taming or they get rid of the bird. Very few stick it out and keep trying.

The main idea with a cage aggressive bird is that their cage is their home, they do not usually want you dealing with anything in their cage. In or near it. They may bite or lunge at you or even chase you if you do not respect their space. This can make feeding and watering and cleaning a hazardous task.

How do you deal with these birds? First, look at the cage, is there something particular in the cage that they are protecting? If so if it possible to remove it, then do so. If not, then it is up to you to avoid this situation. The bird has a good chance of becoming more and more aggressive each time you invade its space, which can create worse future problems.

So, how do you get the bird out of the cage if it will not step up or will not stop attacking your hand? Easy! You let the bird come out of the cage on its own. Just leave the cage door open and do not reach into the cage for the bird. Respect the birds cage as ITS space, not YOURS. If the bird is clipped, you might have to escort the bird to its playgym if the playgym is not within climbing or jump reach of the bird's cage. To do this, simply towel the bird gently and carry it over to the playgym, and then leave it alone for a bit. Let the bird enjoy its time out. After the bird has had time to calm down, you may try step up training. If the bird is not aggressive on the playgym, this is an easier job and regular training can take place on the playgym.

However, if the bird is not willing to come near you with your hand nearby or attacks you still, simply sit where the bird can reach you, but simply read a book or do something that does NOT involve the bird. Place a sprig of spray millet, or another favorite treat where the bird can easily climb to reach, but placed close to you. So if you are sitting on a desk with the bird's playgym on top, sit a few feet away with the treat a few inches from your arm. Let the bird come to you, do not look at the bird right away if the bird comes to you for the spray millet. This will teach the bird that they can trust you and can go to you and you are not a threat. Let them come to you on their terms. Over time, eventually work on holding the treat so that the bird will step up onto your hand.

What is different about this method from regular taming of holding a treat in the hand for the bird? You are not forcing the millet upon the bird, you are letting them set the pace and go to you on their own terms. You have learned to respect the bird's cage space and its own personal boundaries, the bird will feel more comfortable around you and in time will learn to accept you. The cage aggression likely will not stop, but with the mutual respect of space (owner stays out of cage and owner does not get bit, that's the "mutual agreement here") will help with the bird staying more calm when you DO need to go into the cage to feed, water, clean, and service toys. They learn to trust you as they see that you do respect their space and they will relax more around you and not feel as threatened.

Skittish birds

Skittish birds are often timid, flighty, nervous, and scared. These birds tend to adapt much slowly compared to other birds and tend to like familiarity, so frequent cage set up changes may spook them. These birds may take months to fully settle in to a new home, or even into a new cage. These differ from untame birds in the way that they tend to be even slower at adapting and are slow to trust and seem to be scared of nearly everything.

For skittish birds, the method is VERY much the same, only some things are done differently for different reasons. Never towel a skittish bird to bring it out of the cage, this will only frighten them more. Toweling should only be used for medical reasons or with an aggressive clipped bird who needs to be transported from point A to B. A bird can be trained to associate the towel with playtime (positive reinforcement) but this can prove too stressful on a skittish bird.

Never invade a skittish bird's cage. This is their safe haven, the place they should feel comfortable and relaxed. Placing your hands in the cage will frighten the bird and feed their insecurity. For these birds, if they seem really nervous at first, you can cover a corner of the cage, blocking your view of them and their view of you. This is somewhere they can retreat to when they feel scared or overwhelmed.

Allow them to come out of their cage on their own. Quietly sit by and read a book or something similar and just leave the cage door open. Never reach for a timid bird unless absolutely necessary (emergencies, medicating, etc) as they may feel threatened by a "predator" and it may cause them to be even more fearful.

Forcing treats on them as well may not work because they are scared of the hands that hold them. These birds need to be left to come to you on their own as well, just like the aggressive birds. The method is the same, only you want the treat placed farther away from you at the start than you would with an aggressive bird. Over a slow period of time as the bird gets more comfortable, you may move the treat an inch closer to you, until you can hold the treat with your hand open flat on the table. The "mutual agreement" here is that you respect the bird's need for security and space and you will gain a more confident bird in time.

Let me state something with this taming guide. These birds can be worked with FLIGHTED. I have actually found these birds tend to benefit more from being flighted and I have had better results with them being flighted than I have had clipped. However, the aggressive bird might be better attitude wise clipped after taming should the bird attack you, but if the bird does not attack you it is fine to leave the bird flighted if you wish.

I highly recommend the skittish birds to be flighted rather than clipped. Clipping may help a bird rely on you to get around, but it can downright scare a timid bird and cause regression in their trust in you rather than progression. Flighted timid birds also tend to have a confidence boost and will be more willing to approach you as they can get away easier if they feel the need to. Never force a skittish bird to do something it does not want to. This damages their trust in their owners. If the bird wants to fly off and get away from you, let it do so freely. It will see you will not stop it if it wants to get away.

The treat does not have to be food. It can be a favourite toy or some other thing that they really like. I have used this method for my lovebirds. My male is super shy and timid and has been the hardest

to work with in terms of earning his trust, but our female is aggressive and it has been a long but well-worth-it road to having her trust.

I have tried the average typical methods that most people have success with in taming. But it did not work. I often wondered why and ended up frustrated with a bloody hand after trying to get my female lovebird to accept millet or sunflower seeds by hand in her cage. She ended up getting more and more aggressive.

I then let them become flighted and had given up on taming them, I had gotten them as babies and thought I could tame them easier, especially since the female was handfed from hatching. However, they were not socialized, and therefore were wild, and the handfeeding only made my female bold and not afraid to bite the hands that feed her.

I had realized that once flighted, they were more confident. I would leave the cage doors open for them and they would come out on their own. I would hold out paper (their "treat") or millet and they would fly to me for it. Eventually the female would fly over to me just to see what I was doing and to preen my hair.

It was then I had realized I had been going the wrong way about taming them, I needed a different tactic. So, I let them come to me. In time, they've had to be clipped again for safety reasons (female being so aggressive she was also attacking the other birds, in or out of the cage, and clipping restricted her reach of them) and the male lovebird was clipped as well to prevent him from getting bit through the cage bars should he land on her cage. Things regressed far with the male lovebird being clipped. I had since moved the other birds out of the room, so the room only has the two lovebirds in their own separate cages.

The female lovebird remains clipped to protect the male, but the male has recently become flighted again and I have noticed his confidence growing and after five months, he is finally exploring his whole new cage, instead of staying up top all the time. The female lovebird I no longer reach in her cage unless to give her food, water, or clean the cage or to add a new toy. To rearrange the cage, I make sure she is not in her cage and I am safe to change things inside for her.

This mutual agreement with her has really brought out her trust in me and now she is fully tame, she steps up, she runs over and interacts with us, shes not super cuddly but she does accept some scratches (headscratches) and she is not as aggressive in the cage. We let her come out of her cage and then we towel her to bring her to her playgym. The towel protects her and me. If she bites my hand untowelled there is always that chance she could be dropped, the towel prevents this from happening.

All it took was not forcing the taming upon them. The male still is not fully tame, he will let us hold him on his own terms, he likes laying in our hands, but he will not step up. Currently as of writing this sticky, it has taken me one year and seven months to build up the trust I have earned with them. So please, if your bird does not give you results even in a few weeks, never give up on them, as they may take years to fully trust you. However, the trust earned was based on respect and space and I find a stronger bond can be forged this way.

I just wished to share my experiences using these methods and maybe give hope and help to others with birds in this situation.

A video of the female enjoying some scratches!

<https://youtu.be/2Y52HgJ7ykk>

This method can be used for ANY bird, just my experience with untamed skittish and aggressive birds are limited to my lovebirds, but this same method can help all of you with your birds of any species come to trust you more